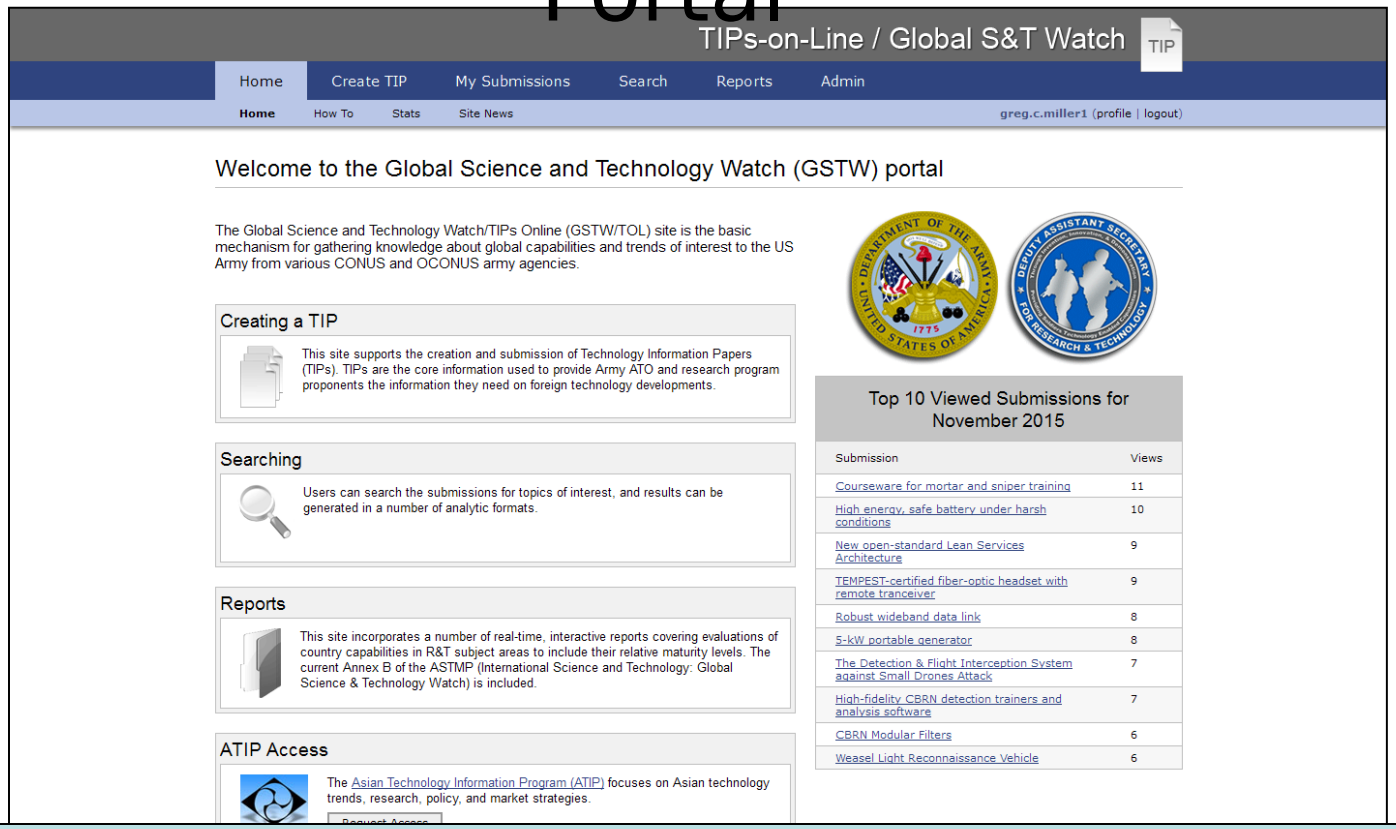
Global Science and Technology Watch Portal


TIPs-on-Line / Global S&T Watch
TIP
Home
Create TIP
My Submissions
Search
Reports
Admin
Home
How To
Stats
Site News
greg.c.miller1 (profile | logout)
Welcome to the Global Science and Technology Watch (GSTW) portal
The Global Science and Technology Watch/TIPs Online (GSTW/TOL) site is the basic mechanism for gathering knowledge about global capabilities and trends of interest to the US Army from various CONUS and OCONUS army agencies.
Creating a TIP
This site supports the creation and submission of Technology Information Papers (TIPs). TIPs are the core information used to provide Army ATO and research program proponents the information they need on foreign technology developments.
Searching
Users can search the submissions for topics of interest, and results can be generated in a number of analytic formats.
Reports
This site incorporates a number of real-time, interactive reports covering evaluations of country capabilities in R&T subject areas to include their relative maturity levels. The current Annex B of the ASTMP (International Science and Technology: Global Science & Technology Watch) is included.
ATIP Access
The Asian Technology Information Program (ATIP) focuses on Asian technology trends, research, policy, and market strategies.
Top 10 Viewed Submissions for November 2015
Submission
Views
Courseware for mortar and sniper training 11
High energy, safe battery under harsh conditions 10
New open-standard Lean Services Architecture 9
TEMPEST-certified fiber-optic headset with remote tranceiver 9
Robust wideband data link 8
5-kW portable generator 8
The Detection & Flight Interception System against Small Drones Attack 7
High-fidelity CBRN detection trainers and analysis software 7
CBRN Modular Filters 6
Weasel Light Reconnaissance Vehicle 6

The home page of the GSTW provides access to creating Technology Information Papers (TIPs), searching TIPs Online, viewing R&T and country reports (including the ASTMP Annex B). From here you can also access the site's How-to or contact information.

Index of TOL/GSTW Topics

How-to topics (part 1)

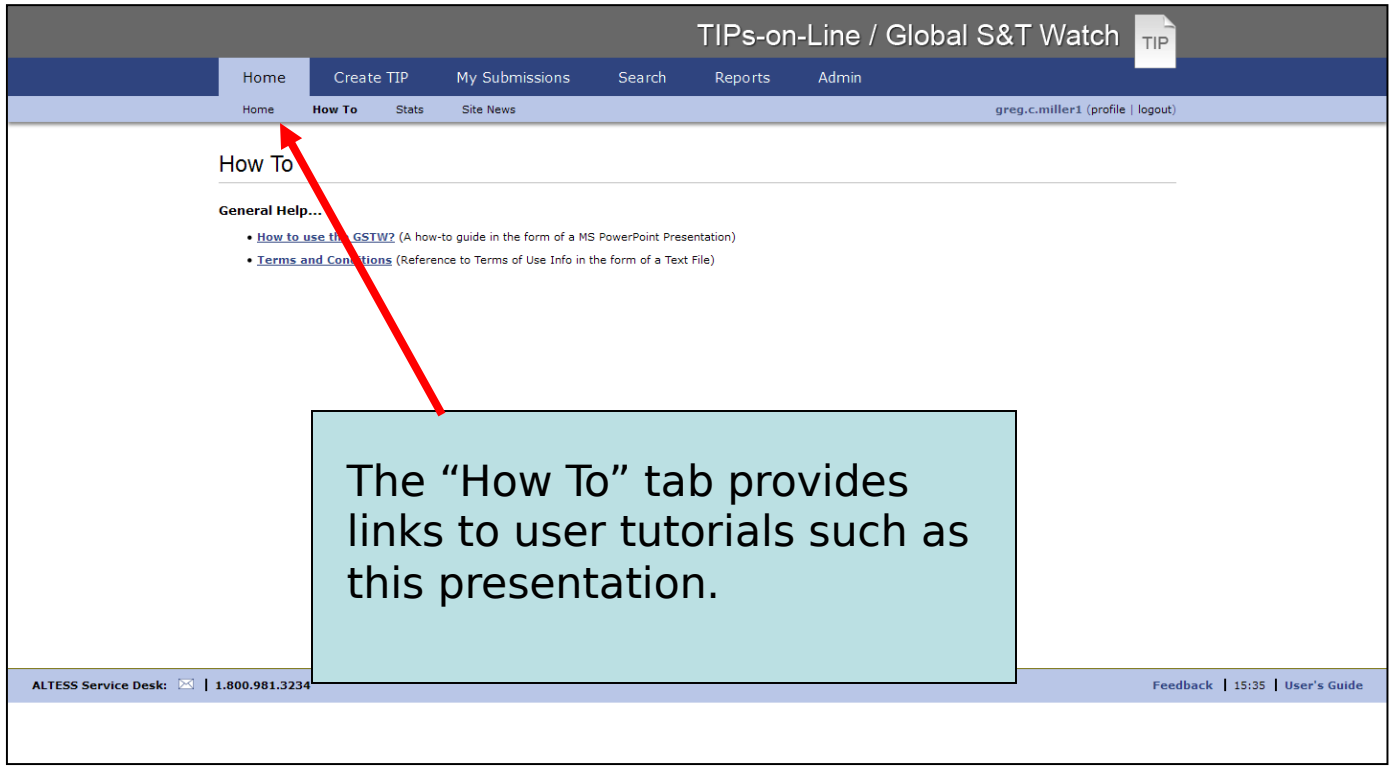
- Contact the TOL/GSTW
- Access GSTW
- Basic Search
  - View Submissions
  - View a complete TIP
  - View TIPs by Country
- View Org Related Activity
- How to create a new TIP

How-to topics (part 2)

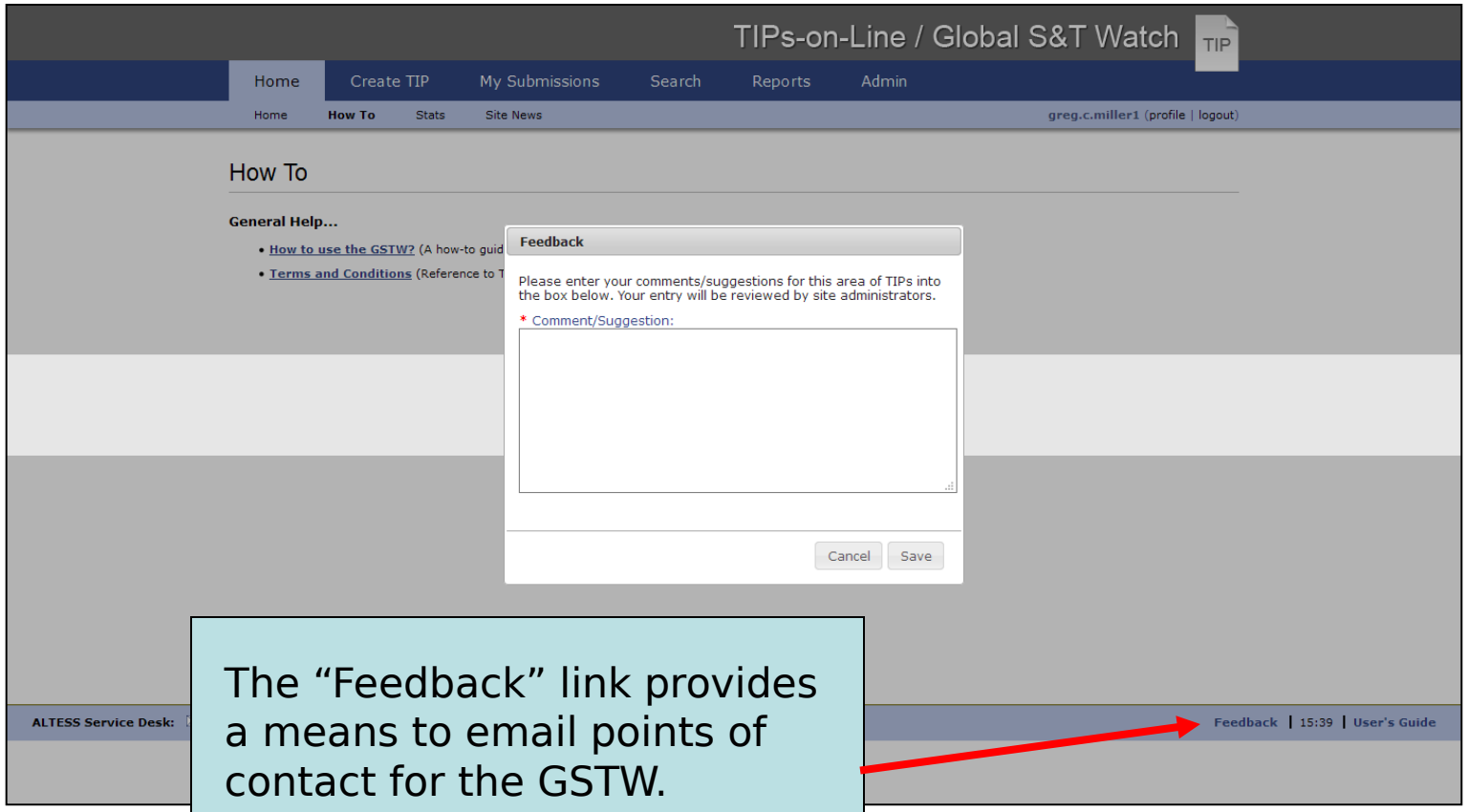
- R&T Reports
- Country Reports
- Statistical Reports
  - Organizational Basic Research Emphasis
  - Organizational Maturity Emphasis
  - Basic Research Country Capabilities
  - Technology Area Country Capabilities
- Advanced Searching
  - Free Text Search
  - Information Alerts
- ASTMP Annex B

Click the home icon ( ) in the top right of any slide to return here.

How to Use the TOL/GSTW


TIPs-on-Line / Global S&T Watch
TIP
Home
Create TIP
My Submissions
Search
Reports
Admin
Home
How To
Stats
Site News
greg.c.miller1 (profile | logout)
How To
General Help...
How to use the GSTW? (A how-to guide in the form of a MS PowerPoint Presentation)
Terms and Conditions (Reference to Terms of Use Info in the form of a Text File)
The “How To” tab provides links to user tutorials such as this presentation.
ALTESS Service Desk: | 1.800.981.3234
Feedback | 15:35 | User's Guide

Contact the TOL/GSTW



The “Feedback” link provides a means to email points of contact for the GSTW.

Access the GSTW

TIPs-on-Line / Global S&T Watch
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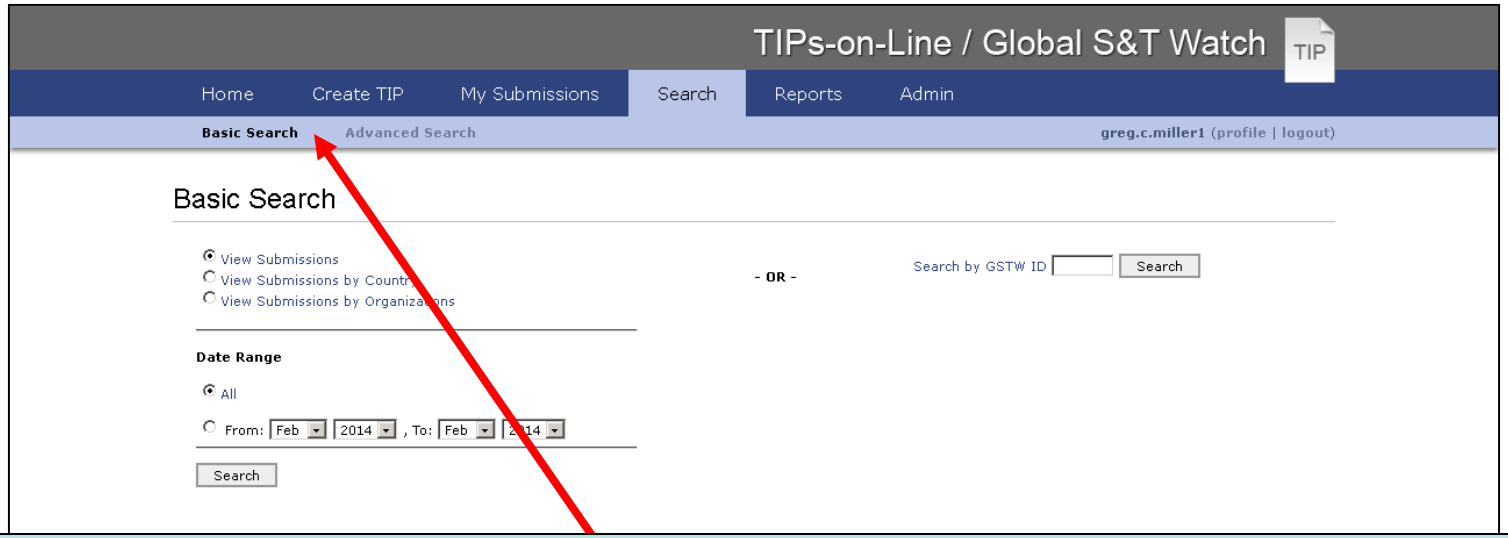
Searching
Users can search the submissions for topics of interest, and results can be generated in a number of analytic formats.
Top 10 Viewed Submissions for November 2015
Submission
Views
Courseware for mortar and sniper training
11
High energy, safe battery under harsh conditions
10
New open-standard Lean Services Architecture
9

TIPs OnLine is a basic mechanism for gathering knowledge from all sources about global capabilities and trends of interest to the US Army.

The objective of TIPs OnLine is to standardize and automate the TIP submission process, make the information more readily accessible and useful to the Army, and ultimately to transition to using TIPS as the basis for assessments captured in the Biennial build of the ASTMP.

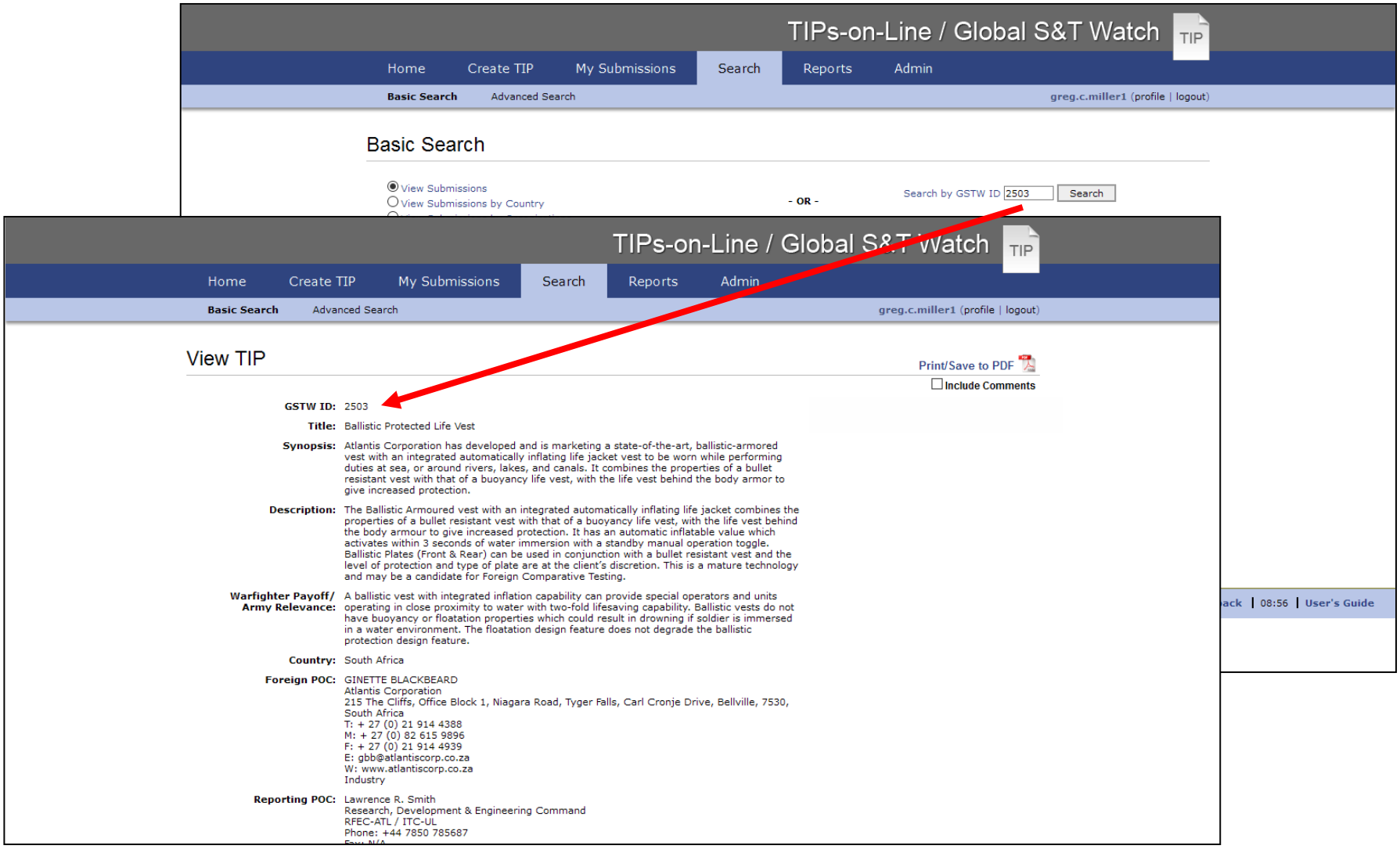
Basic Search



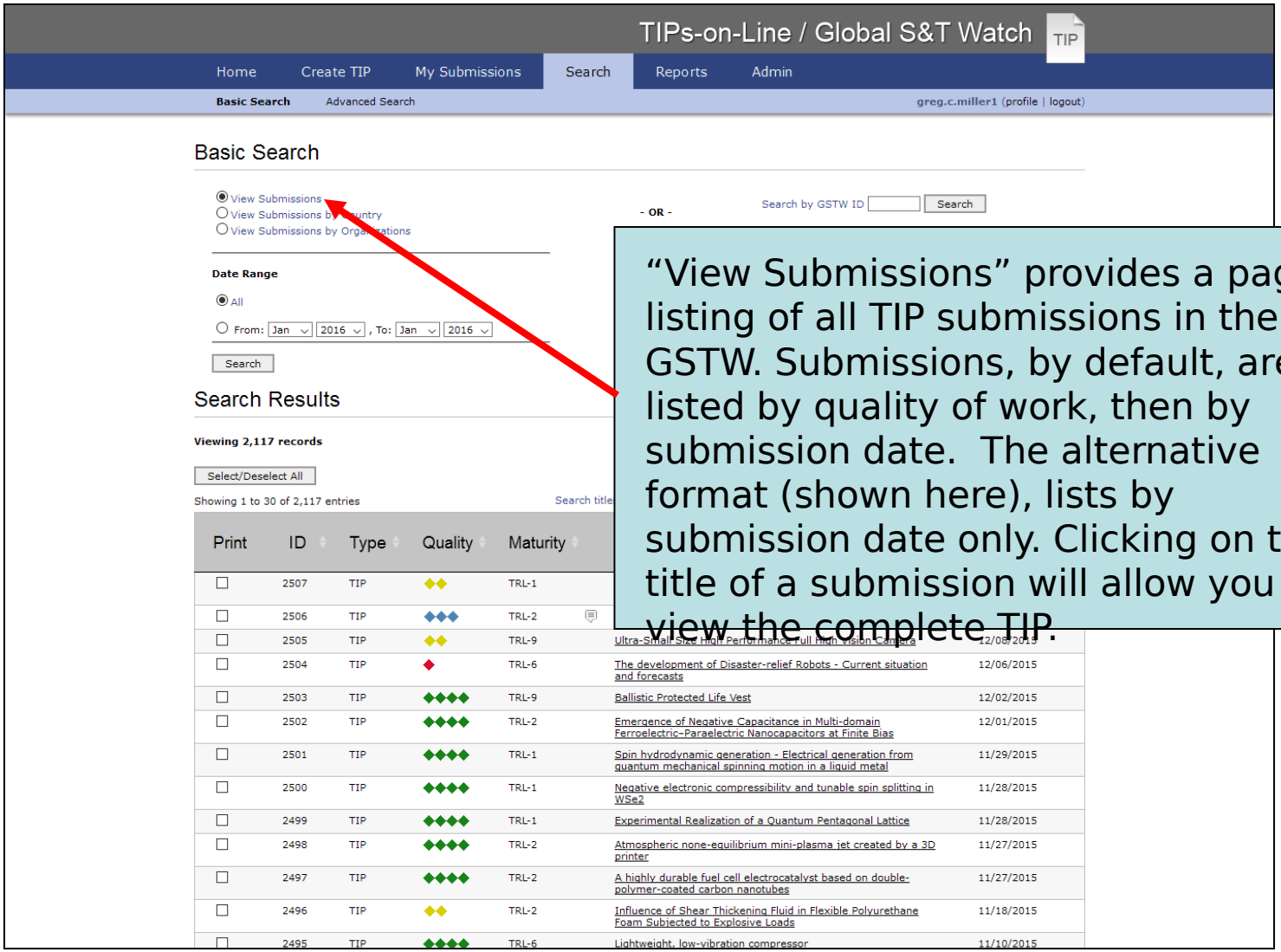
The Basic Search page of TOL supports quick access to lists of submitted TIPs, the ability to quickly view country capabilities based upon submitted TIPs, and quick access to TIPs submitted by organizations. The information can be filtered for a user defined time period.

Also supported is the ability to find and view specific TIPs based on their ID number.

Search TIP by ID


TIPs-on-Line / Global S&T Watch
TIP
Home
Create TIP
My Submissions
Search
Reports
Admin
Basic Search
Advanced Search
greg.c.miller1 (profile | logout)
Basic Search
View Submissions
View Submissions by Country
- OR -
Search by GSTW ID 2503
Search
TIPs-on-Line / Global S&T Watch
TIP
Home
Create TIP
My Submissions
Search
Reports
Admin
Basic Search
Advanced Search
greg.c.miller1 (profile | logout)
View TIP
Print/Save to PDF
Include Comments
GSTW ID: 2503
Title: Ballistic Protected Life Vest
Synopsis: Atlantis Corporation has developed and is marketing a state-of-the-art, ballistic-armored vest with an integrated automatically inflating life jacket vest to be worn while performing duties at sea, or around rivers, lakes, and canals. It combines the properties of a bullet resistant vest with that of a buoyancy life vest, with the life vest behind the body armor to give increased protection.
Description: The Ballistic Armoured vest with an integrated automatically inflating life jacket combines the properties of a bullet resistant vest with that of a buoyancy life vest, with the life vest behind the body armour to give increased protection. It has an automatic inflatable value which activates within 3 seconds of water immersion with a standby manual operation toggle. Ballistic Plates (Front & Rear) can be used in conjunction with a bullet resistant vest and the level of protection and type of plate are at the client's discretion. This is a mature technology and may be a candidate for Foreign Comparative Testing.
Warfighter Payoff/ Army Relevance: A ballistic vest with integrated inflation capability can provide special operators and units operating in close proximity to water with two-fold lifesaving capability. Ballistic vests do not have buoyancy or floatation properties which could result in drowning if soldier is immersed in a water environment. The floatation design feature does not degrade the ballistic protection design feature.
Country: South Africa
Foreign POC: GINETTE BLACKBEARD
Atlantis Corporation
215 The Cliffs, Office Block 1, Niagara Road, Tyger Falls, Carl Cronje Drive, Bellville, 7530, South Africa
T: + 27 (0) 21 914 4388
M: + 27 (0) 82 615 9896
F: + 27 (0) 21 914 4939
E: gbb@atlantiscorp.co.za
W: www.atlantiscorp.co.za
Industry
Reporting POC: Lawrence R. Smith
Research, Development & Engineering Command
RFEC-ATL / ITC-UL
Phone: +44 7850 785687
ack | 08:56 | User's Guide

View Submissions


TIPs-on-Line / Global S&T Watch
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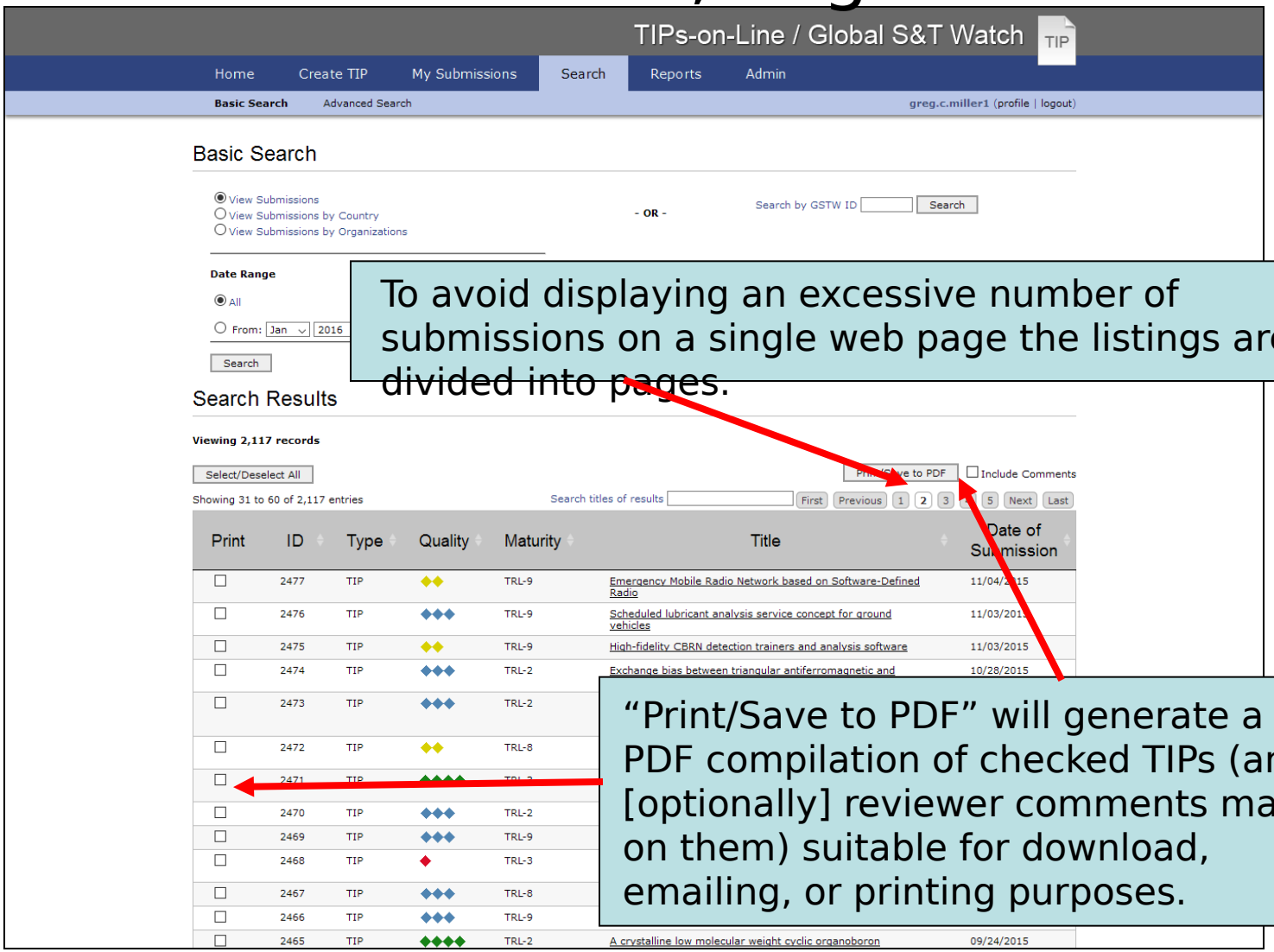
greg.c.miller1 (profile | logout)
Basic Search
View Submissions
View Submissions by Country
View Submissions by Organizations
- OR -
Search by GSTW ID
Search
Date Range
All
From: Jan 2016 , To: Jan 2016
Search
Search Results
Viewing 2,117 records
Select/Deselect All
Showing 1 to 30 of 2,117 entries
Search title
Print
ID
Type
Quality
Maturity
2507 TIP TRL-1
2506 TIP TRL-2
2505 TIP TRL-9 Ultra-Small-Size High Performance Full High Vision Camera 12/08/2015
2504 TIP TRL-6 The development of Disaster-relief Robots - Current situation and forecasts 12/06/2015
2503 TIP TRL-9 Ballistic Protected Life Vest 12/02/2015
2502 TIP TRL-2 Emergence of Negative Capacitance in Multi-domain Ferroelectric-Paraelectric Nanocapacitors at Finite Bias 12/01/2015
2501 TIP TRL-1 Spin hydrodynamic generation - Electrical generation from quantum mechanical spinning motion in a liquid metal 11/29/2015
2500 TIP TRL-1 Negative electronic compressibility and tunable spin splitting in WSe2 11/28/2015
2499 TIP TRL-1 Experimental Realization of a Quantum Pentagonal Lattice 11/28/2015
2498 TIP TRL-2 Atmospheric none-equilibrium mini-plasma jet created by a 3D printer 11/27/2015
2497 TIP TRL-2 A highly durable fuel cell electrocatalyst based on double-polymer-coated carbon nanotubes 11/27/2015
2496 TIP TRL-2 Influence of Shear Thickening Fluid in Flexible Polyurethane Foam Subjected to Explosive Loads 11/18/2015
2495 TIP TRL-6 Lightweight, low-vibration compressor 11/10/2015

"View Submissions" provides a paged listing of all TIP submissions in the GSTW. Submissions, by default, are listed by quality of work, then by submission date. The alternative format (shown here), lists by submission date only. Clicking on the title of a submission will allow you to view the complete TIP.

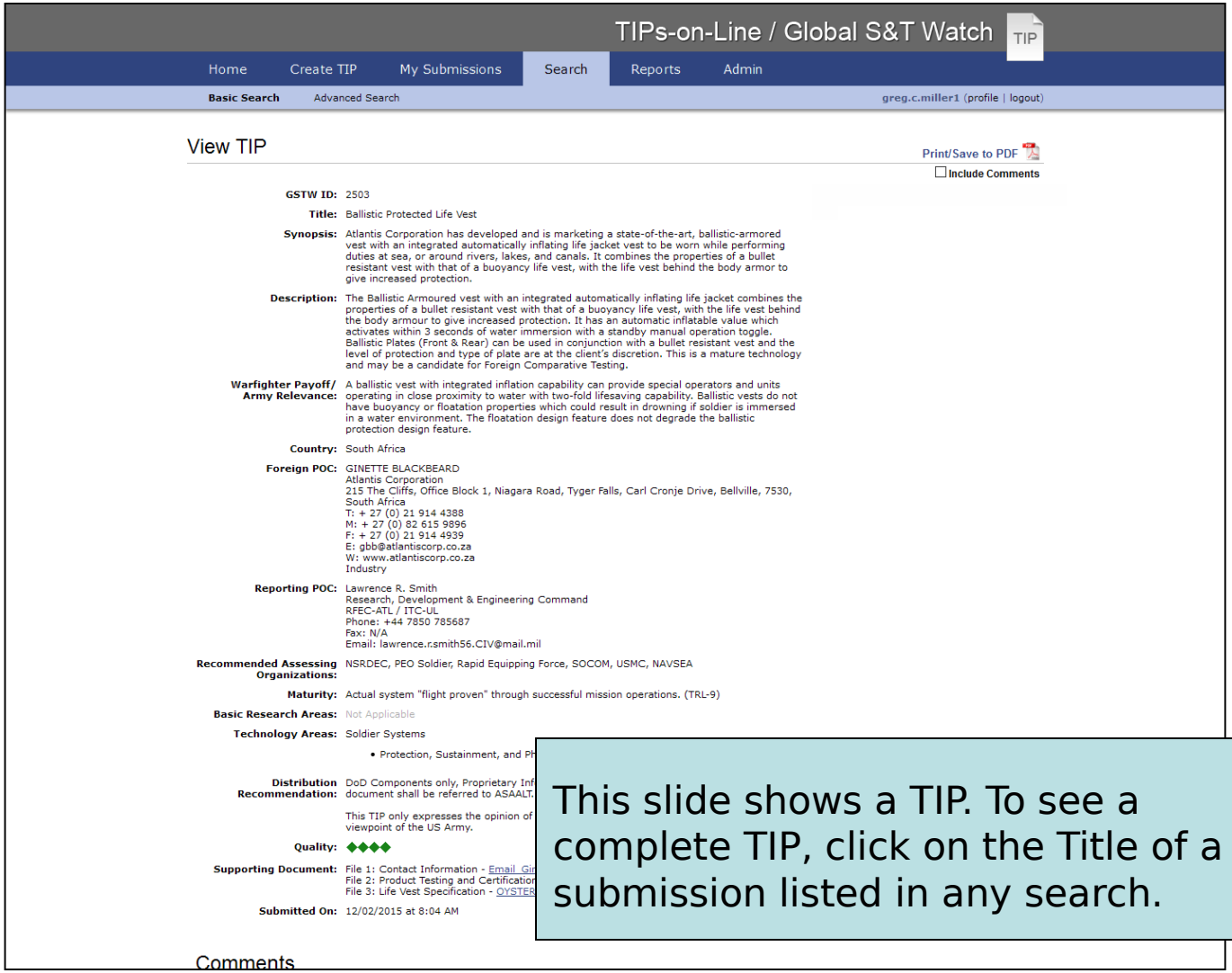
View All TIPs, Page 2



To avoid displaying an excessive number of submissions on a single web page the listings are divided into pages.

"Print/Save to PDF" will generate a PDF compilation of checked TIPs (and [optionally] reviewer comments made on them) suitable for download, emailing, or printing purposes.

Viewing a TIP


TIPs-on-Line / Global S&T Watch
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Country: South Africa
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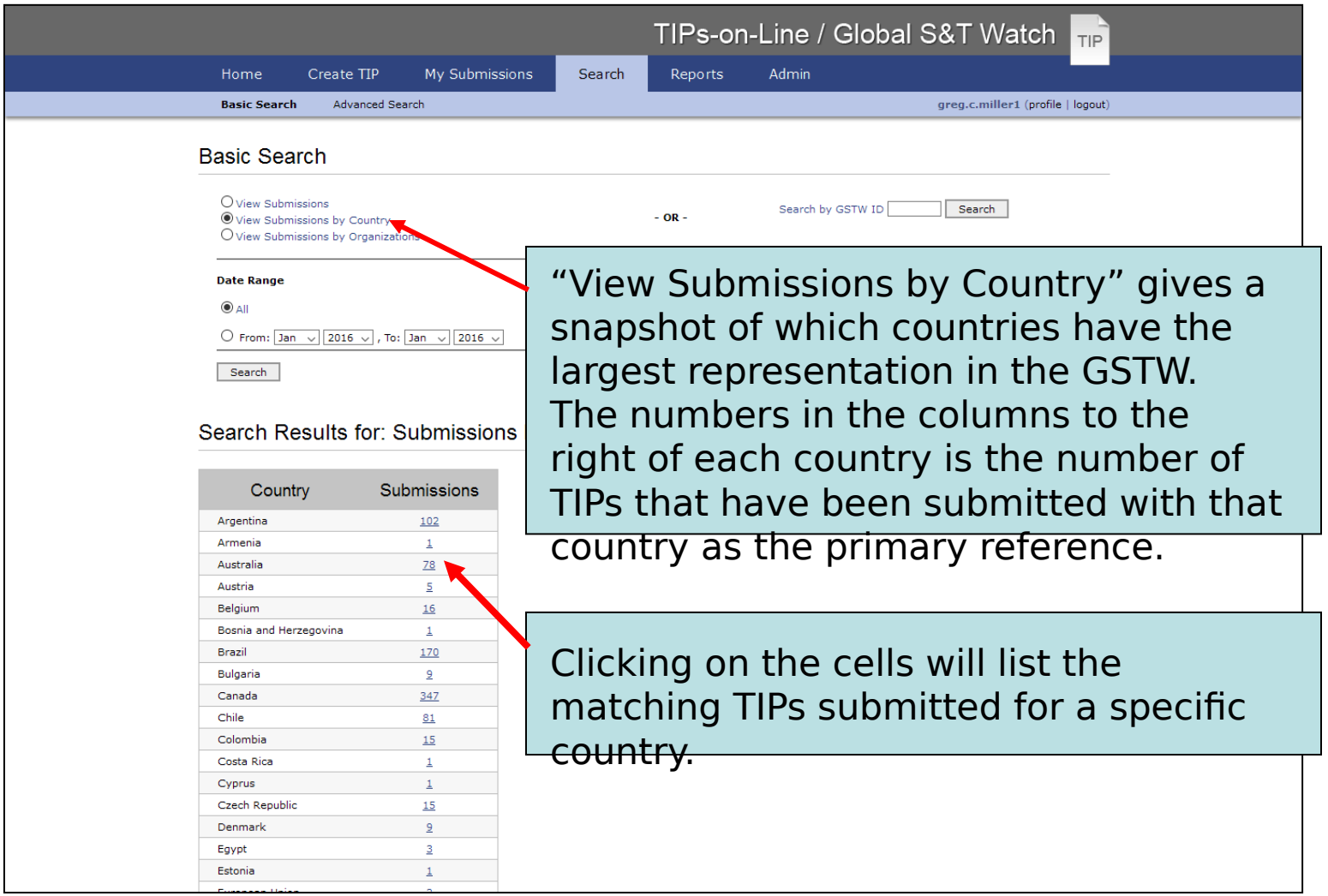
E: gbb@atlantiscorp.co.za
W: www.atlantiscorp.co.za
Industry
Reporting POC: Lawrence R. Smith
Research, Development & Engineering Command
RFEC-ATL / ITC-UL
Phone: +44 7850 785687
Fax: N/A
Email: lawrence.r.smith56.CIV@mail.mil
Recommended Assessing Organizations: NSRDEC, PEO Soldier, Rapid Equipping Force, SOCOM, USMC, NAVSEA
Maturity: Actual system "flight proven" through successful mission operations. (TRL-9)
Basic Research Areas: Not Applicable
Technology Areas: Soldier Systems
• Protection, Sustainment, and Ph
Distribution Recommendation: DoD Components only, Proprietary Inf
document shall be referred to ASAALT.
This TIP only expresses the opinion of
viewpoint of the US Army.
Quality:
Supporting Document: File 1: Contact Information - Email Gi
File 2: Product Testing and Certificatio
File 3: Life Vest Specification - OYSTER
Submitted On: 12/02/2015 at 8:04 AM
Comments

This slide shows a TIP. To see a complete TIP, click on the Title of a submission listed in any search.

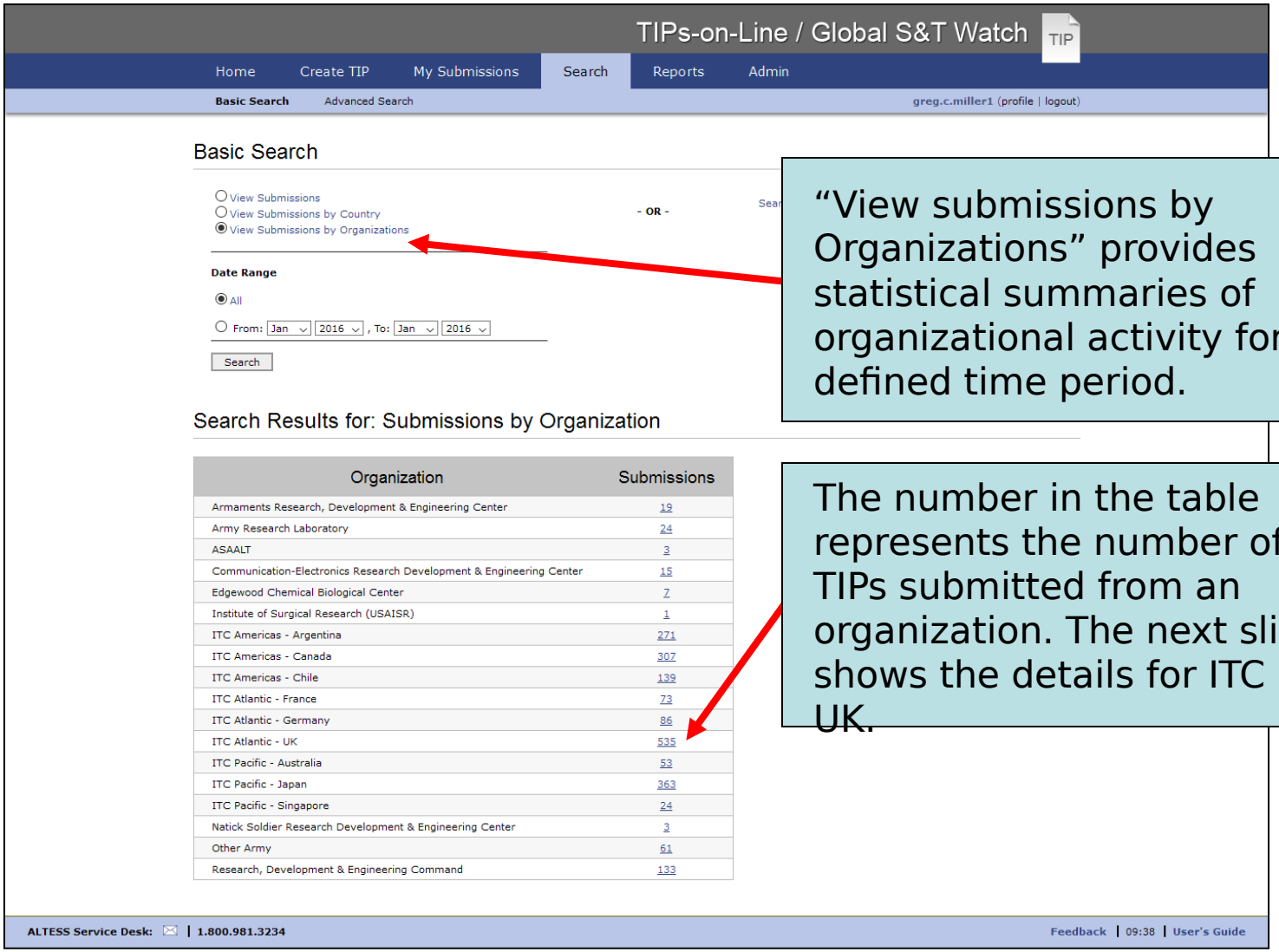
View Submissions by Country



"View Submissions by Country" gives a snapshot of which countries have the largest representation in the GSTW. The numbers in the columns to the right of each country is the number of TIPs that have been submitted with that country as the primary reference.

Clicking on the cells will list the matching TIPs submitted for a specific country.

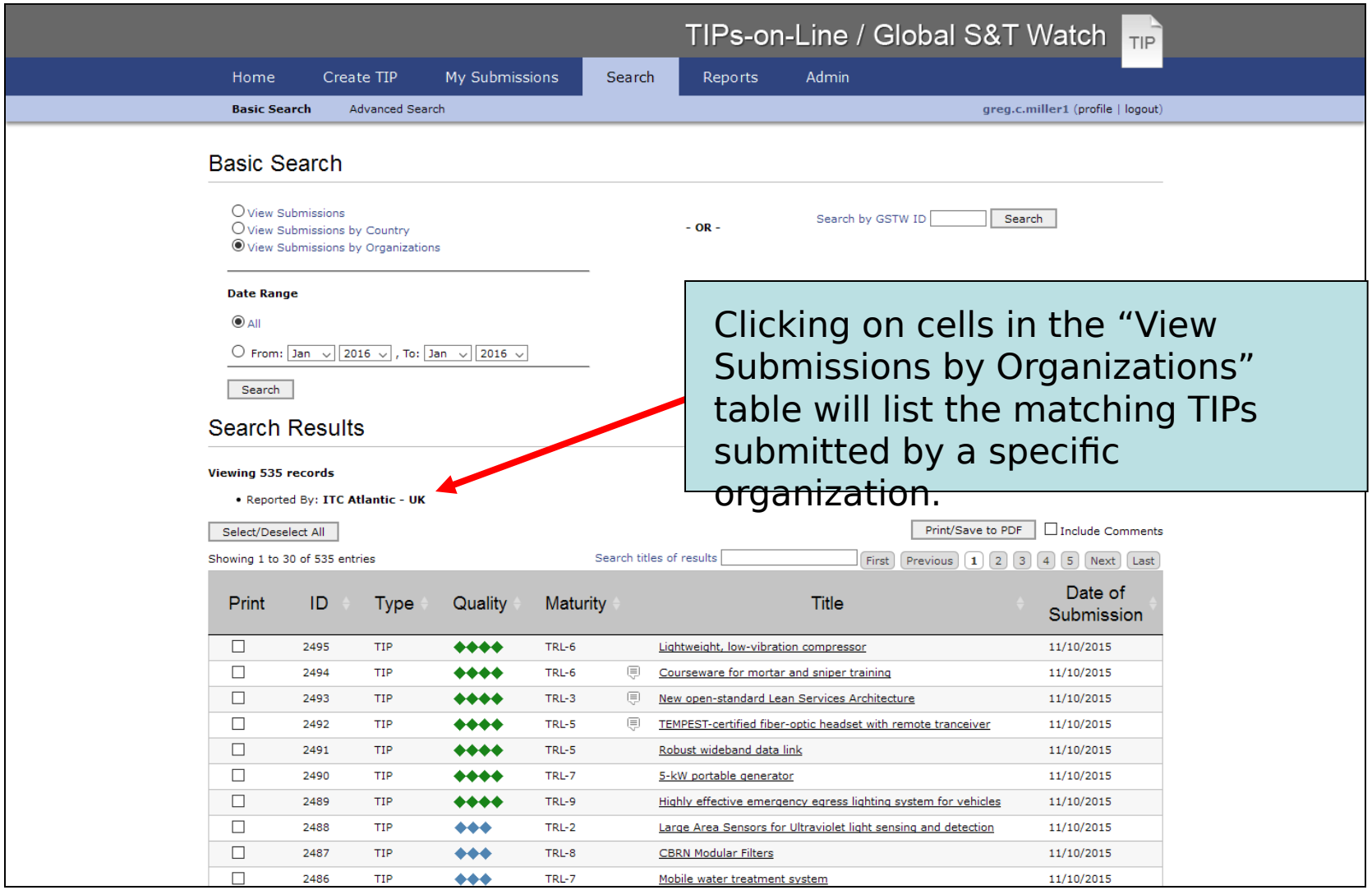
View Org Related Activity



"View submissions by Organizations" provides statistical summaries of organizational activity for a defined time period.

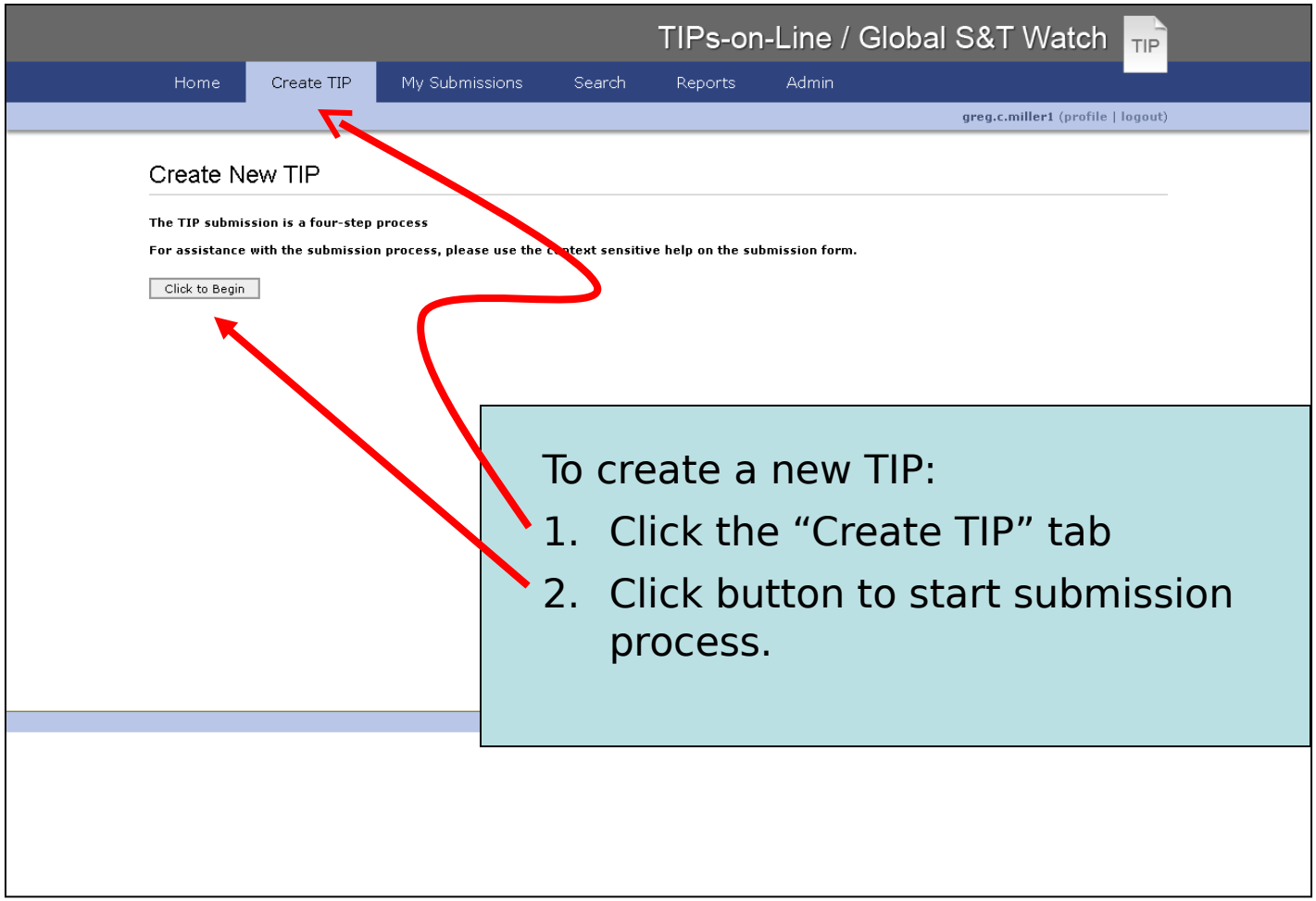
The number in the table represents the number of TIPs submitted from an organization. The next slide shows the details for ITC UK.

View Org Related Activity, Page 2



Clicking on cells in the “View Submissions by Organizations” table will list the matching TIPs submitted by a specific organization.

Create a New TIP



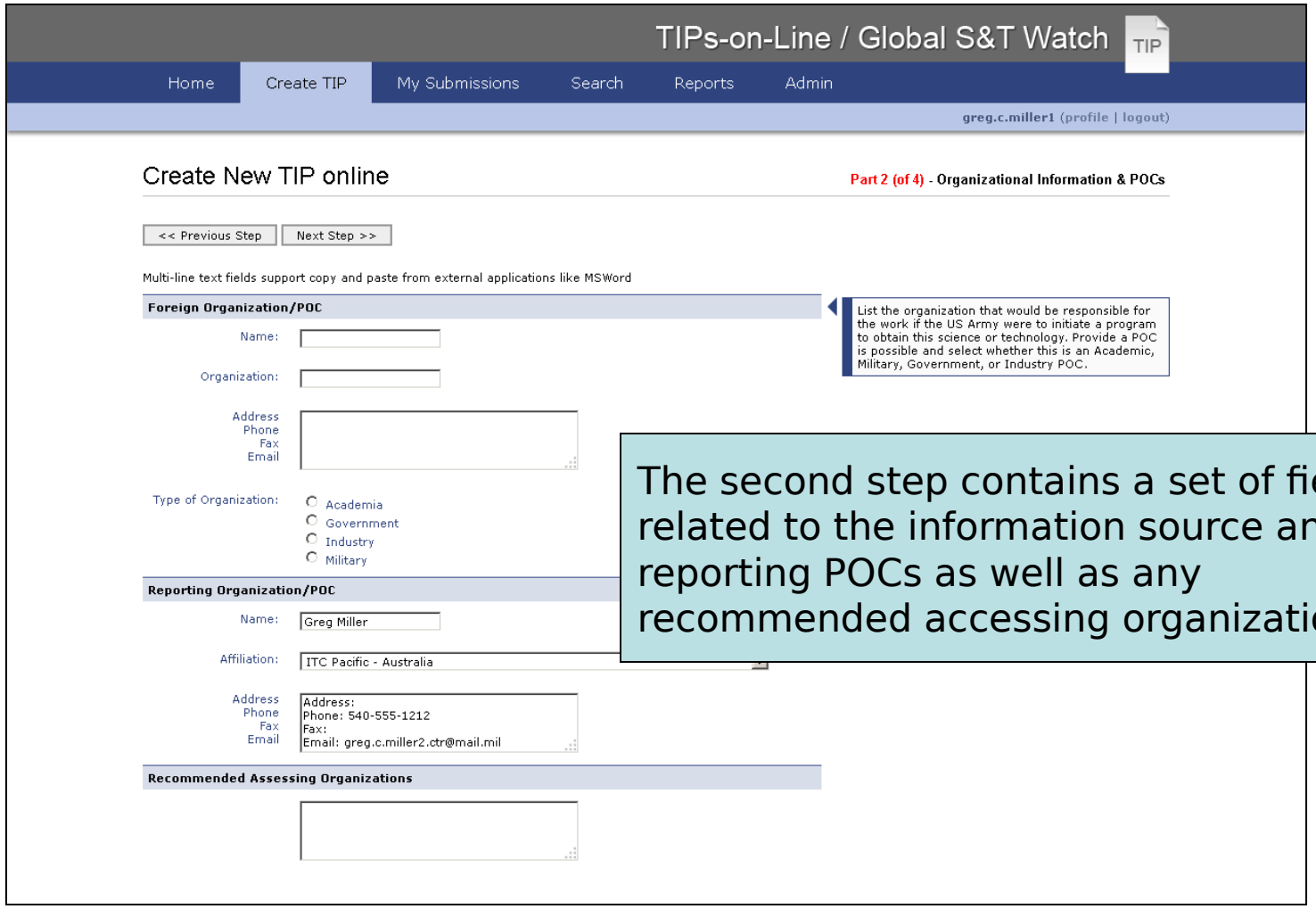
To create a new TIP:

1. Click the “Create TIP” tab
2. Click button to start submission process.

Create a New TIP : Step 1 of 4

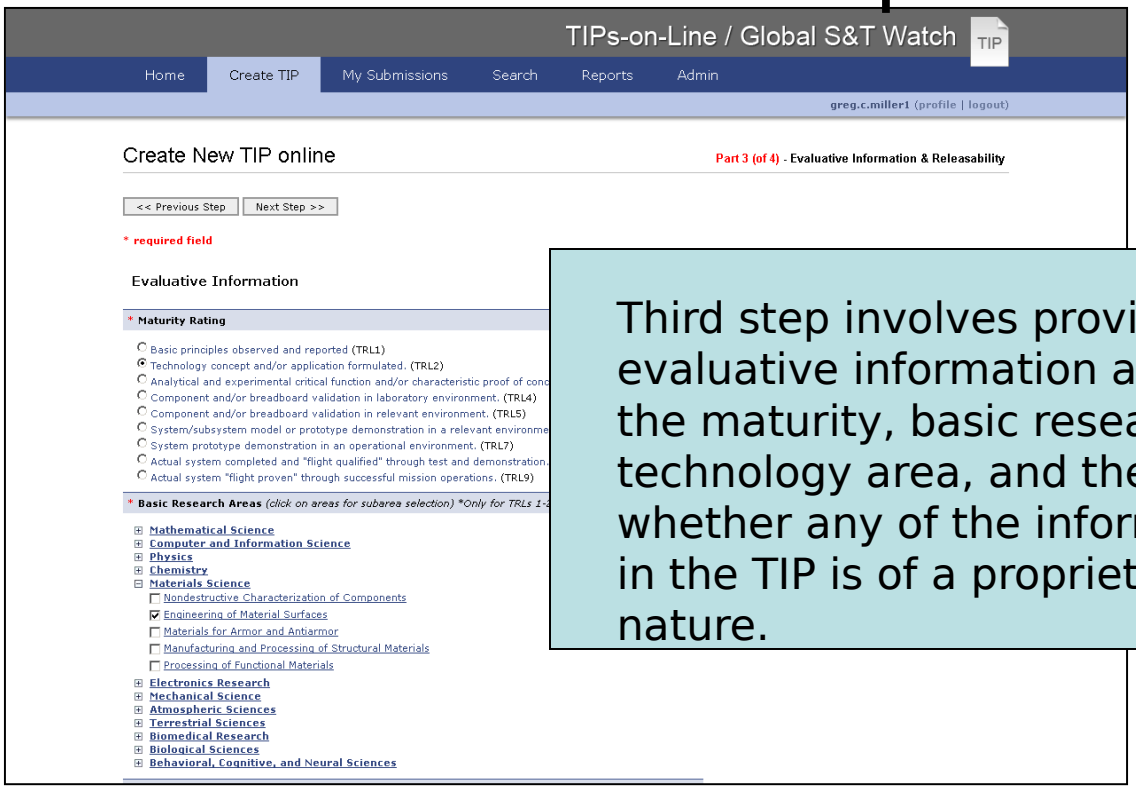
TIPs-on-Line / Global S&T Watch
TIP
Home
Create TIP
My Submissions
Search
Reports
Admin
greg.c.miller1 (profile | logout)
Create New TIP online
Part 1 (of 4) - Descriptive Information
Next Step >>
* required field, click on form fields for context sensitive help
Multi-line text fields support copy and paste from external applications like MSWord
* Title:
test title
Titles should contain enough information to let a user determine whether or not a given record is of interest.
* Synopsis:
test synopsis
Description:
test description
Warfighter Payoff/ Army Relevance:
test payoff
FOC Supporting Information
* Country:
Australia
Next Step >>
This is the first step of the four step process for creating a TIP. Required fields have a red asterisk next to them and field specific help is available by clicking in the form field (see example to the right of the description field).

Create a New TIP: Step 2 of 4



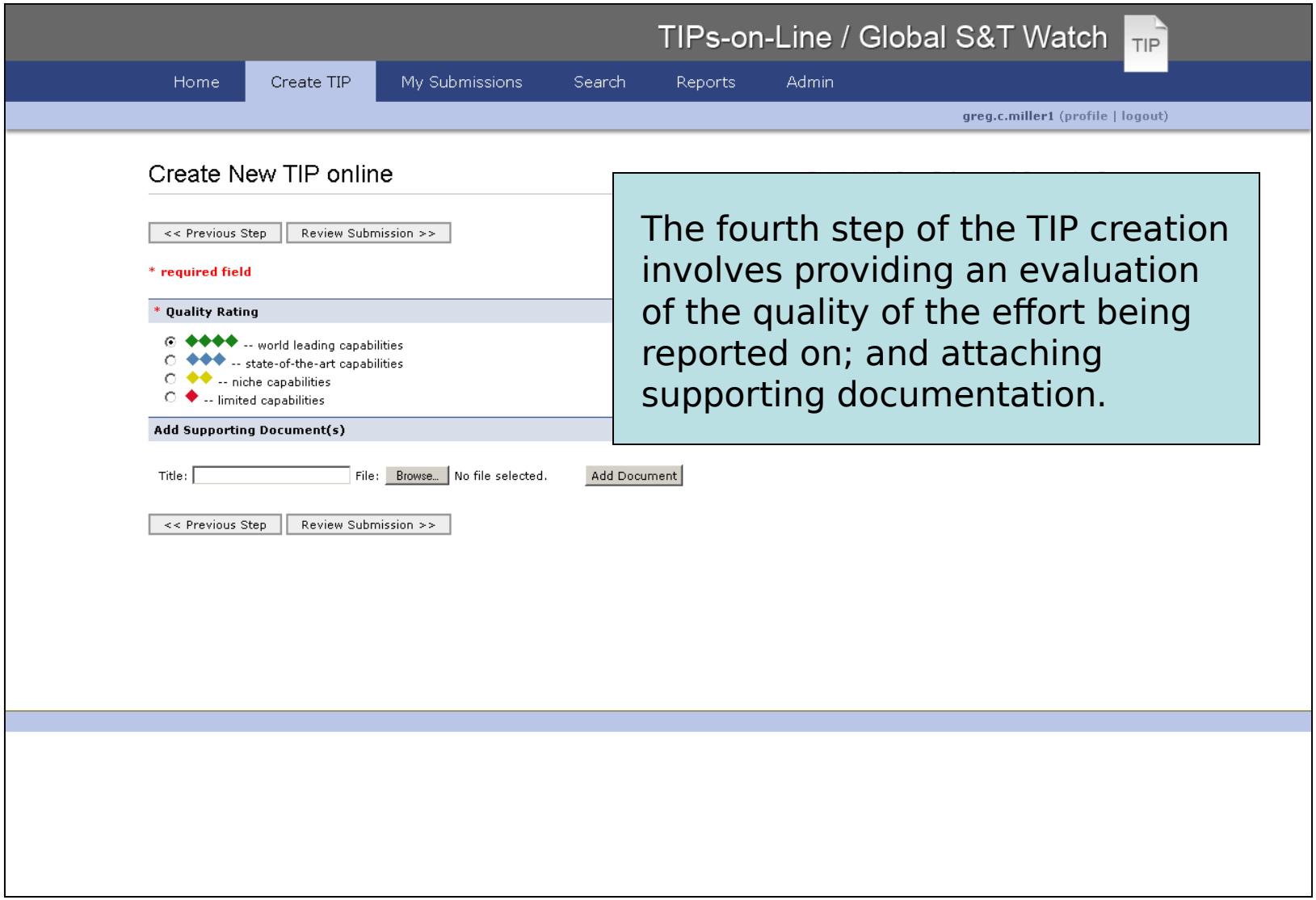
The second step contains a set of fields related to the information source and reporting POCs as well as any recommended accessing organizations.

Create a New TIP: Step 3 of 4


TIPs-on-Line / Global S&T Watch
TIP
Home
Create TIP
My Submissions
Search
Reports
Admin
greg.c.miller1 (profile | logout)
Create New TIP online
Part 3 (of 4) - Evaluative Information & Releasability
<< Previous Step
Next Step >>
* required field
Evaluative Information
* Maturity Rating
Basic principles observed and reported (TRL1)
Technology concept and/or application formulated. (TRL2)
Analytical and experimental critical function and/or characteristic proof of conc
Component and/or breadboard validation in laboratory environment. (TRL4)
Component and/or breadboard validation in relevant environment. (TRL5)
System/subsystem model or prototype demonstration in a relevant environme
System prototype demonstration in an operational environment. (TRL7)
Actual system completed and "flight qualified" through test and demonstration.
Actual system "flight proven" through successful mission operations. (TRL9)
* Basic Research Areas (click on areas for subarea selection) *Only for TRLs 1-
Mathematical Science
Computer and Information Science
Physics
Chemistry
Materials Science
Nondestructive Characterization of Components
Engineering of Material Surfaces
Materials for Armor and Antiarmor
Manufacturing and Processing of Structural Materials
Processing of Functional Materials
Electronics Research
Mechanical Science
Atmospheric Sciences
Terrestrial Sciences
Biomedical Research
Biological Sciences
Behavioral, Cognitive, and Neural Sciences

Third step involves providing evaluative information about the maturity, basic research or technology area, and the whether any of the information in the TIP is of a proprietary nature.

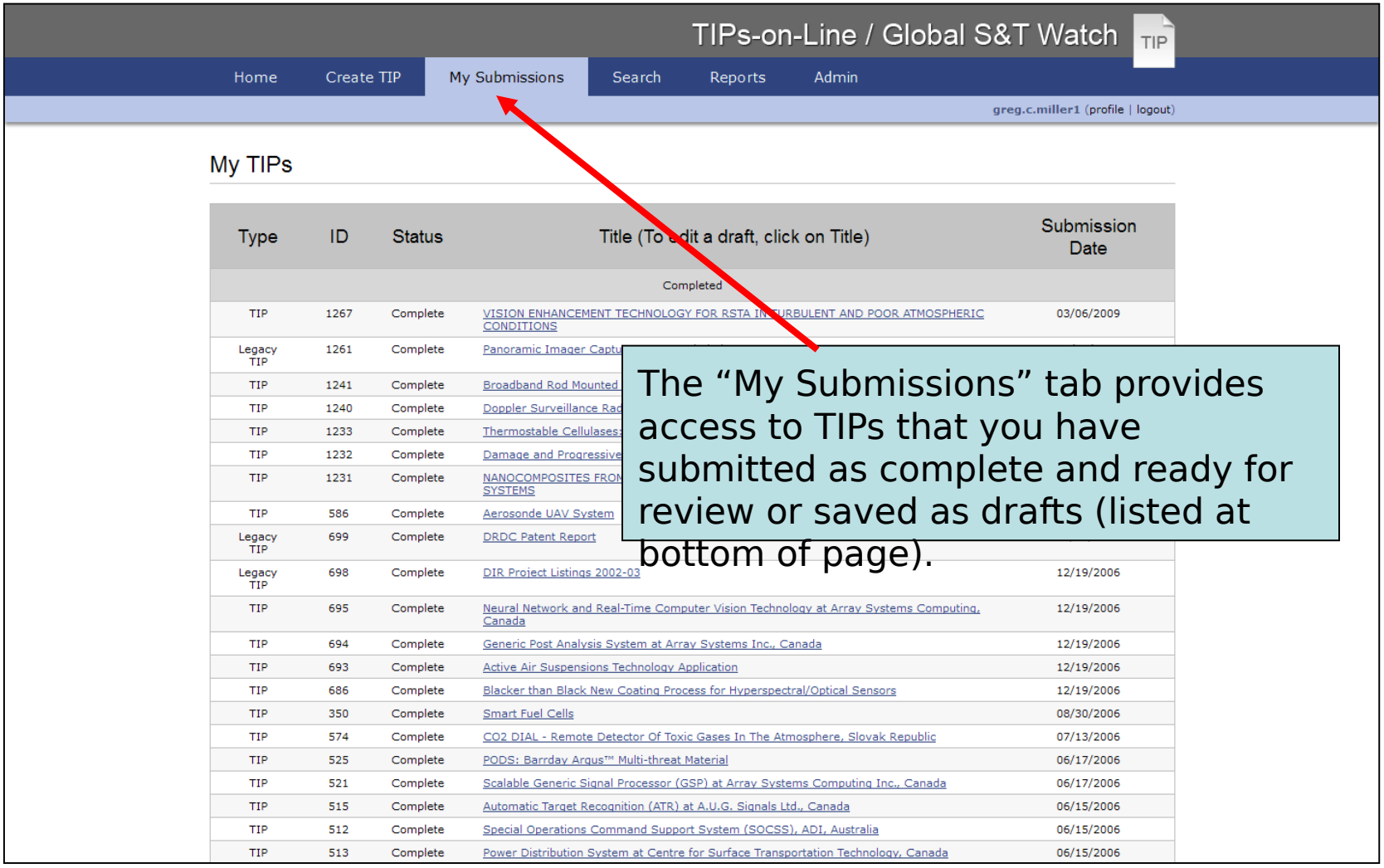
Create a New TIP: Step 4 of 4



Create a New TIP: Review Submission

Upon completing the four steps you have the opportunity to preview your new TIP and make any corrections or necessary edits. The TIP is automatically saved as a draft, if you want to complete it later, or you can mark it complete and submit it for outside review.

Viewing your submissions: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Admin
greg.c.miller1 (profile | logout)
My TIPs
Type
ID
Status
Title (To edit a draft, click on Title)
Submission Date
Completed
TIP 1267 Complete VISION ENHANCEMENT TECHNOLOGY FOR RSTA IN TURBULENT AND POOR ATMOSPHERIC CONDITIONS 03/06/2009
Legacy TIP 1261 Complete Panoramic Imager Captu
TIP 1241 Complete Broadband Rod Mounted
TIP 1240 Complete Doppler Surveillance Rad
TIP 1233 Complete Thermostable Cellulases
TIP 1232 Complete Damage and Progressive
TIP 1231 Complete NANOCOMPOSITES FRON SYSTEMS
TIP 586 Complete Aerosonde UAV System
Legacy TIP 699 Complete DRDC Patent Report
Legacy TIP 698 Complete DIR Project Listings 2002-03 12/19/2006
TIP 695 Complete Neural Network and Real-Time Computer Vision Technology at Array Systems Computing, Canada 12/19/2006
TIP 694 Complete Generic Post Analysis System at Array Systems Inc., Canada 12/19/2006
TIP 693 Complete Active Air Suspensions Technology Application 12/19/2006
TIP 686 Complete Blacker than Black New Coating Process for Hyperspectral/Optical Sensors 12/19/2006
TIP 350 Complete Smart Fuel Cells 08/30/2006
TIP 574 Complete CO2 DIAL - Remote Detector Of Toxic Gases In The Atmosphere, Slovak Republic 07/13/2006
TIP 525 Complete PODS: Barrday Argus™ Multi-threat Material 06/17/2006
TIP 521 Complete Scalable Generic Signal Processor (GSP) at Array Systems Computing Inc., Canada 06/17/2006
TIP 515 Complete Automatic Target Recognition (ATR) at A.U.G. Signals Ltd., Canada 06/15/2006
TIP 512 Complete Special Operations Command Support System (SOCSS), ADI, Australia 06/15/2006
TIP 513 Complete Power Distribution System at Centre for Surface Transportation Technology, Canada 06/15/2006
The “My Submissions” tab provides access to TIPs that you have submitted as complete and ready for review or saved as drafts (listed at bottom of page).

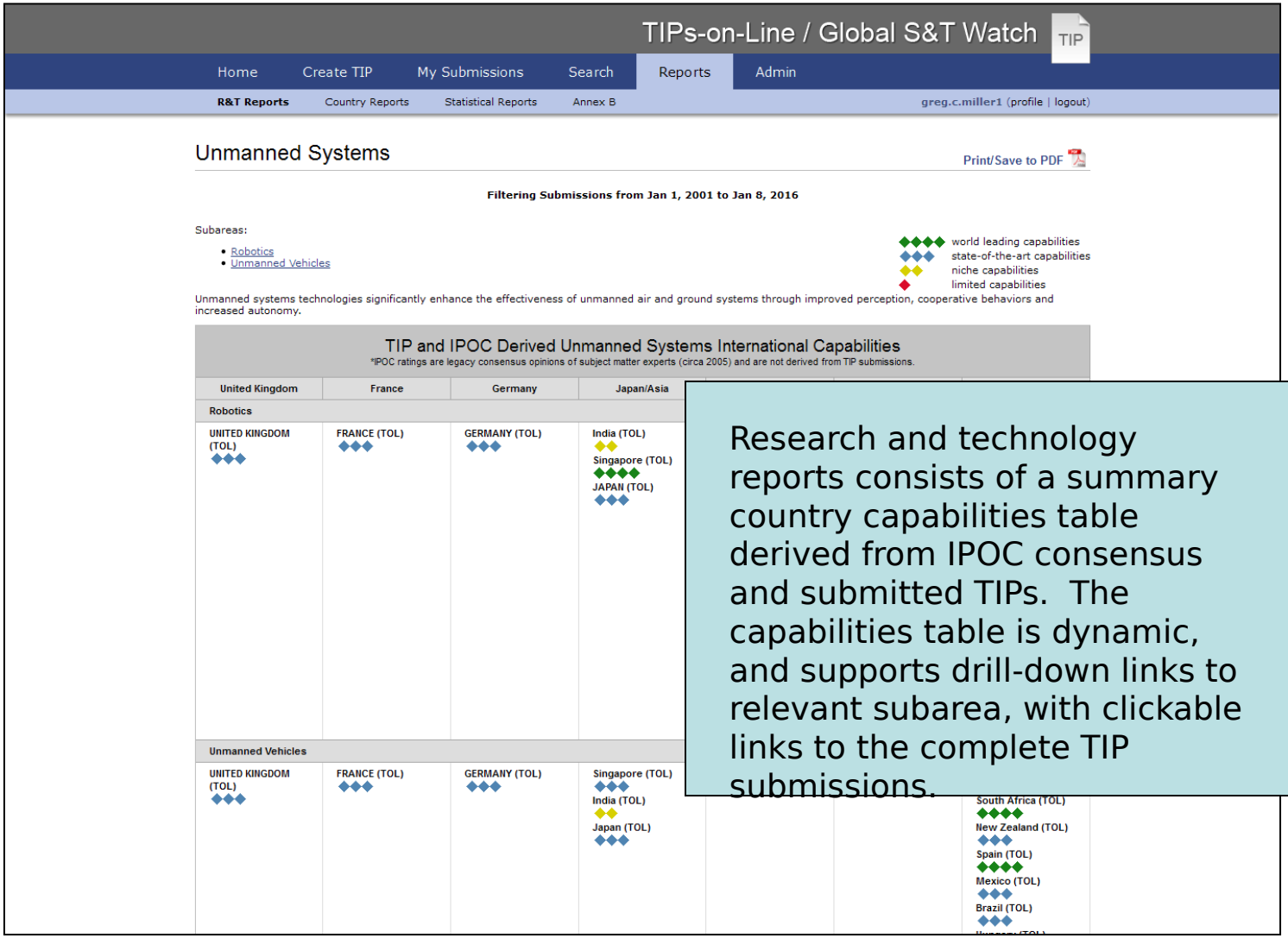
Viewing R&T Reports

You can filter all of the reports by a user specified date range

Research and technology reports provide snapshots of global capabilities organized by the Basic Research and Technology areas.

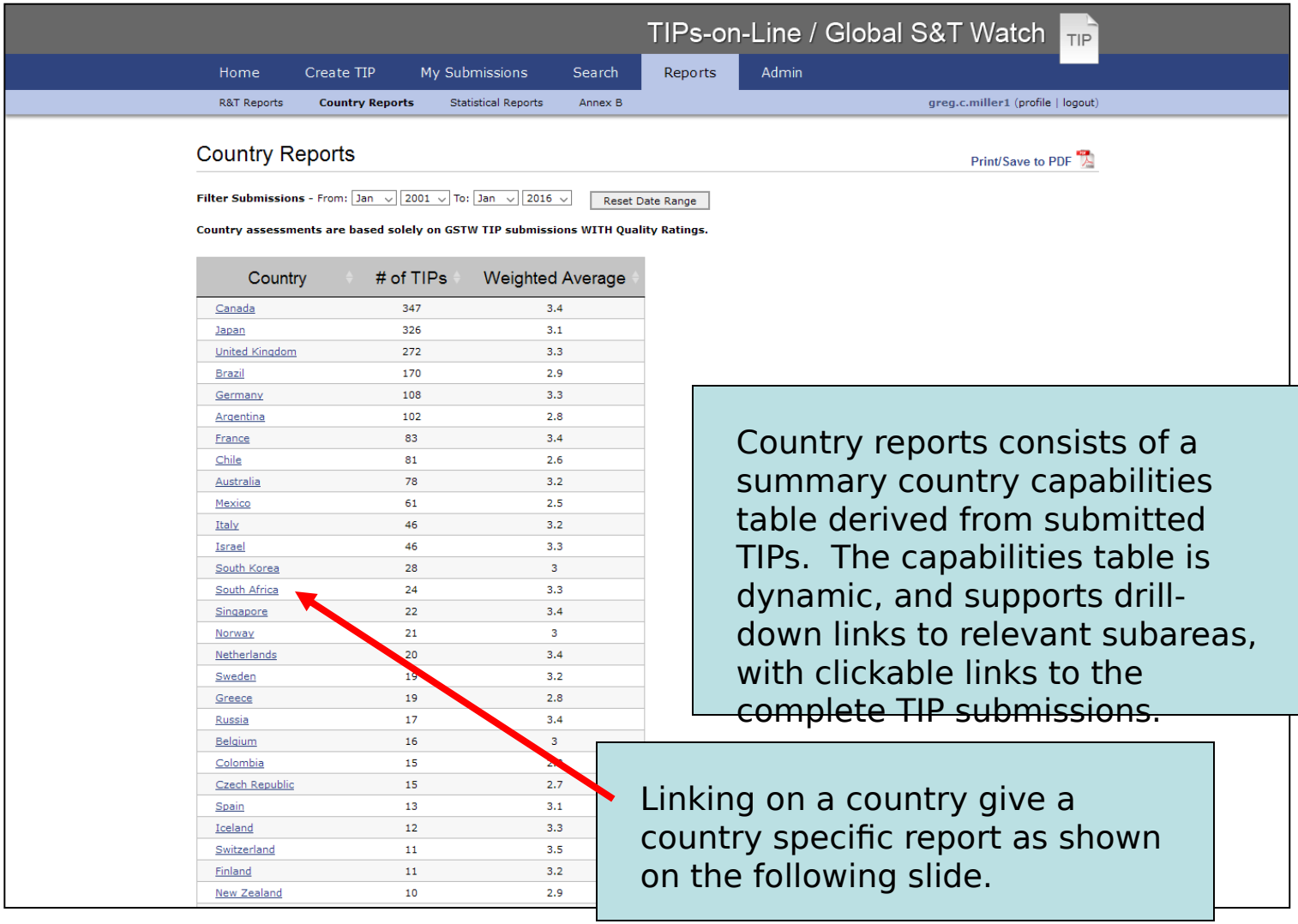
To see reports, click on the research or technology areas.

Viewing an R&T Area



Research and technology reports consists of a summary country capabilities table derived from IPOC consensus and submitted TIPs. The capabilities table is dynamic, and supports drill-down links to relevant subarea, with clickable links to the complete TIP submissions.

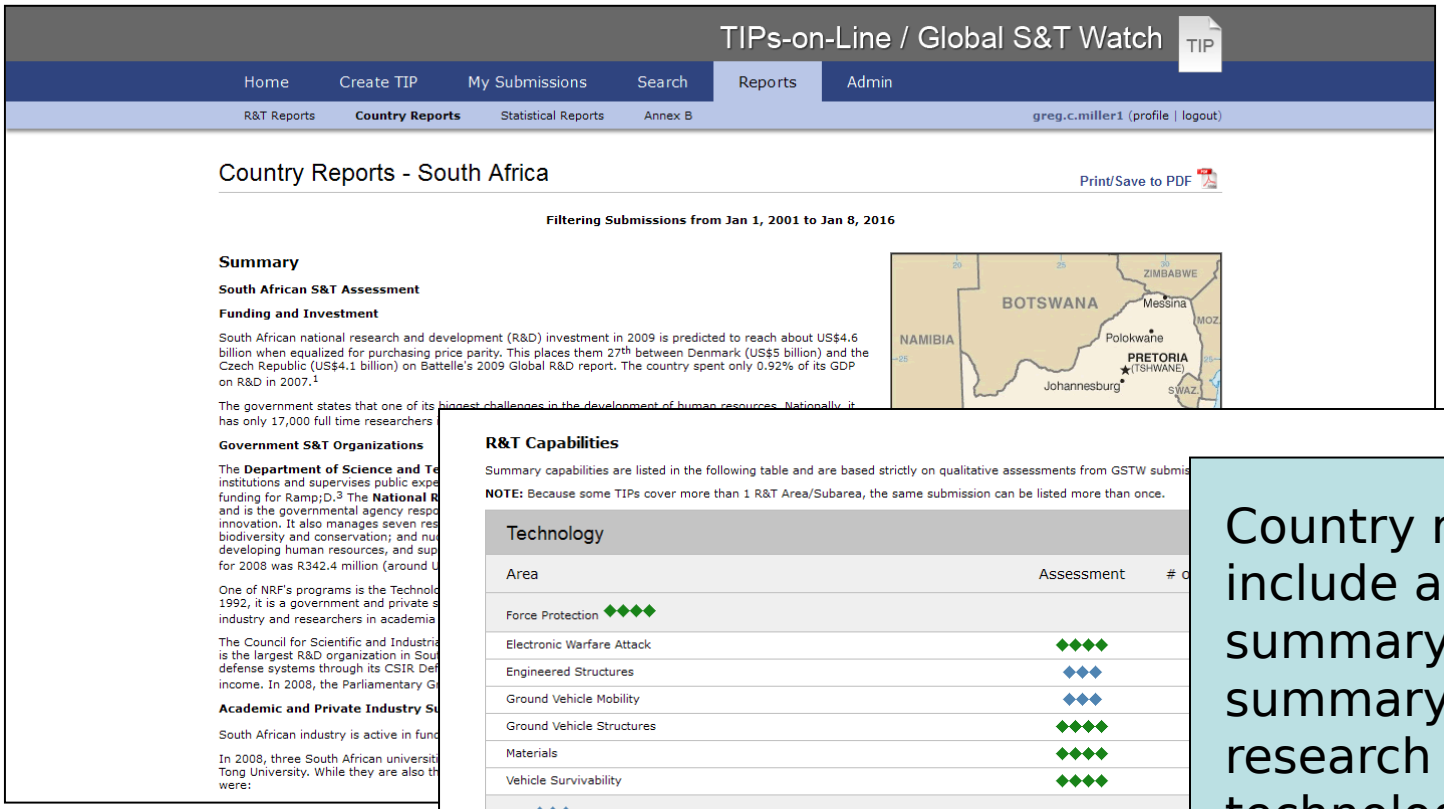
Viewing Country Reports



Country reports consists of a summary country capabilities table derived from submitted TIPs. The capabilities table is dynamic, and supports drill-down links to relevant subareas, with clickable links to the complete TIP submissions.

Linking on a country give a country specific report as shown on the following slide.

Country Report, South Africa


TIPs-on-Line / Global S&T Watch
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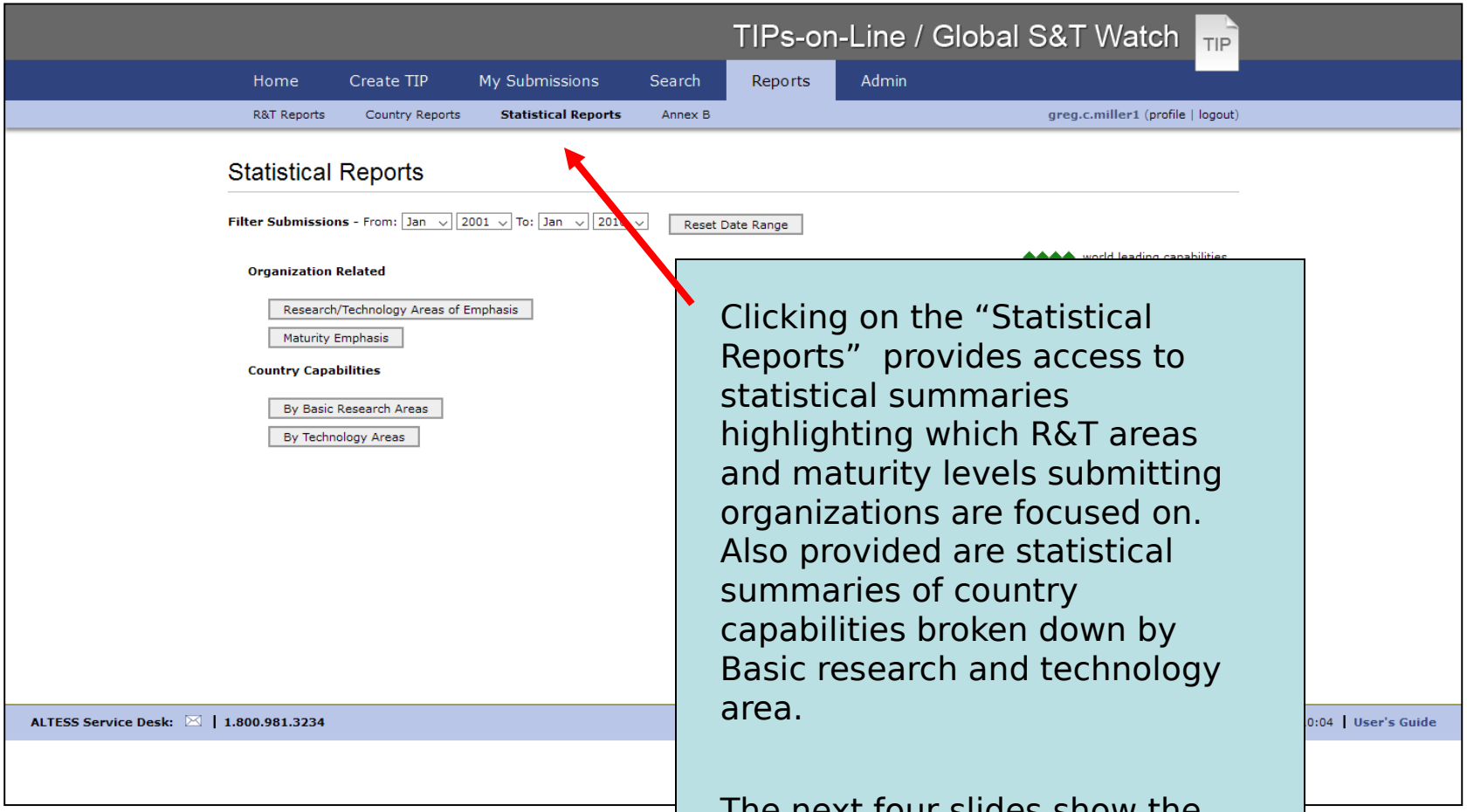
Reports
Admin
R&T Reports
Country Reports
Statistical Reports
Annex B
greg.c.miller1 (profile | logout)
Country Reports - South Africa
Print/Save to PDF
Filtering Submissions from Jan 1, 2001 to Jan 8, 2016
Summary
South African S&T Assessment
Funding and Investment
South African national research and development (R&D) investment in 2009 is predicted to reach about US$4.6 billion when equalized for purchasing price parity. This places them 27th between Denmark (US$5 billion) and the Czech Republic (US$4.1 billion) on Battelle's 2009 Global R&D report. The country spent only 0.92% of its GDP on R&D in 2007.[1]
The government states that one of its biggest challenges in the development of human resources. Nationally, it has only 17,000 full time researchers
Government S&T Organizations
The Department of Science and Te
institutions and supervises public expe
funding for Ramp;D.[3] The National R
and is the governmental agency respo
innovation. It also manages seven res
biodiversity and conservation; and nu
developing human resources, and sup
for 2008 was R342.4 million (around U
One of NRF's programs is the Technolo
1992, it is a government and private s
industry and researchers in academia
The Council for Scientific and Industri
is the largest R&D organization in Sou
defense systems through its CSIR Def
income. In 2008, the Parliamentary G
Academic and Private Industry Su
South African industry is active in fund
In 2008, three South African universiti
Tong University. While they are also th
were:
ZIMBABWE
BOTSWANA
Messina
NAMIBIA
Polokwane
PRETORIA
(TSHWANE)
Johannesburg
SWAZ
R&T Capabilities
Summary capabilities are listed in the following table and are based strictly on qualitative assessments from GSTW submis
NOTE: Because some TIPs cover more than 1 R&T Area/Subarea, the same submission can be listed more than once.
Technology
Area
Assessment
o
Force Protection
Electronic Warfare Attack
Engineered Structures
Ground Vehicle Mobility
Ground Vehicle Structures
Materials
Vehicle Survivability
ISR
Electro-Optic Sensors
Electronics
Sensors
C4
Terrestrial Environment
Lethality
Weapon Lethality/Vulnerability
Medical
International Warrior Research
1

Country reports include an S&T summary, a summary table of research and technology capabilities, and lists of all relevant TIPs for that country.

Viewing Statistical Reports



Clicking on the "Statistical Reports" provides access to statistical summaries highlighting which R&T areas and maturity levels submitting organizations are focused on. Also provided are statistical summaries of country capabilities broken down by Basic research and technology area.

The next four slides show the analytic tools.

Organizational R&T Emphasis

The numbers in the distribution matrix indicate the number of matching submissions.
Clicking on the number will list the relevant submissions

Save as Spreadsheet

	Armaments Research, Development & Engineering Center	Army Research Laboratory	ASAALT	Communication-Electronics Research Development & Engineering Center	Edgewood Chemical Biological Center	Institute of Surgical Research (USAISR)	ITC Americas - Argentina	ITC Americas - Canada	ITC Americas - Chile	ITC Atlantic - France	ITC Atlantic - Germany	ITC Atlantic - UK	ITC Pacific - Australia	ITC Pacif - Japa
Basic Research Areas														
Mathematical Science	-	-	-	-	-	-	8	5	1	2	1	4	-	1
Computer and Information Science	-	-	-	-	-	-	13	7	3	2	2	8	3	5
Physics	-	1	-	-	-	-	27	8	5	4	3	23	-	37
Chemistry	-	-	-	-	-	-	7	9	2	3	3	9	-	21
Materials Science	-	2	-	-	-	-	51	8	4	5	2	8	-	50
Electronics Research	-	1	-	-	-	-	11	7	4	9	2	8	-	48
Mechanical Science	-	-	-	-	-	-	22	7	2	2	1	3	1	3
Terrestrial Sciences	-	-	-	-	-	-	-	4	1	-	-	-	-	-
Biomedical Research	-	1	-	-	-	-	1	1	4	-	1	2	-	5
Biological Sciences	-	-	-	-	-	-	15	-	2	-	1	1	-	7
Behavioral, Cognitive, and Neural Sciences	-	-	-	-	-	-	1	10	4	-	1	4	-	-
Technology Areas														
Force Protection	3	5	-	2	5	-	40	74	3	10	19	114	4	18
ISR	1	1	-	7	1	-	23	49	8	11	14	104	3	29
C4	-	3	-	3	2	-	17	39	1	4	6	28	5	16
Lethality	7	1	-	-	1	-	33	19	-	5	4	30	1	-
Medical	-	1	-	-	1	1	21	33	10	1	4	16	-	4
Unmanned Systems	-	-	-	-	1	-	26	18	10	4	4	32	7	13
Soldier Systems	6	1	1	4	3	-	28	59	1	7	3	50	4	20
Logistics	-	1	-	4	2	-	30	45	3	7	11	38	1	38

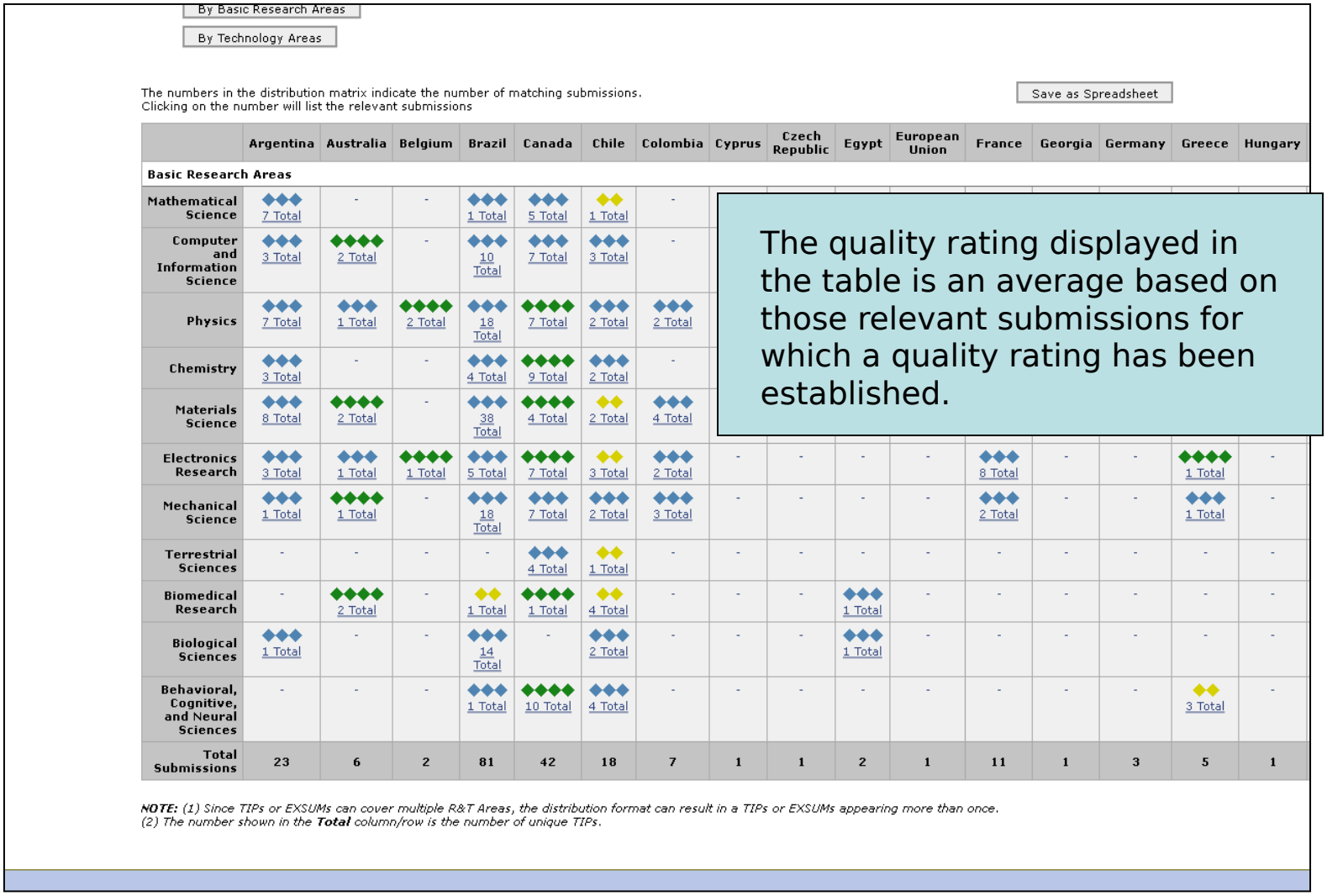
Organizational Maturity Emphasis

The numbers in the distribution matrix indicate the number of matching submissions.
Clicking on the number will list the relevant submissions

Save as Spreadsheet

	Armaments Research, Development & Engineering Center	Army Research Laboratory	ASAALT	Communication-Electronics Research Development & Engineering Center	Edgewood Chemical Biological Center	Institute of Surgical Research (USAISR)	ITC Americas - Argentina	ITC Americas - Canada	ITC Americas - Chile	ITC Atlantic - France	ITC Atlantic - Germany	ITC Atlantic - UK	ITC Pacific - Australia
Basic principles observed and reported (TRL 1)	-	-	-	-	-	-	10	5	3	3	-	33	1
Technology concept and/or application formulated. (TRL 2)	-	2	-	-	-	-	105	18	25	12	7	65	3
Analytical and experimental critical function and/or characteristic proof of concept. (TRL 3)	3	-	1	1	-	-	42	19	21	4	10	59	1
Component and/or breadboard validation in laboratory environment. (TRL 4)	1	2	-	3	2	1	27	28	9	8	7	45	2
Component and/or breadboard validation in relevant environment. (TRL 5)	3	2	-	4	1	-	9	59	5	7	6	28	3
System/subsystem model or prototype demonstration in a relevant environment (ground or space). (TRL 6)	6	3	-	4	2	-	18	59	4	6	6	39	12
System prototype demonstration in an operational environment. (TRL 7)	3	1	-	-	-	-	9	22	7	8	5	32	5
Actual system completed and "flight qualified" through test and demonstration. (TRL 8)	-	-	-	-	-	-	10	29	17	8	7	42	9
Actual system	-	1	-	-	-	-	26	39	4	7	14	65	10

Basic Research Country Capabilities



By Basic Research Areas

By Technology Areas

The numbers in the distribution matrix indicate the number of matching submissions.
Clicking on the number will list the relevant submissions

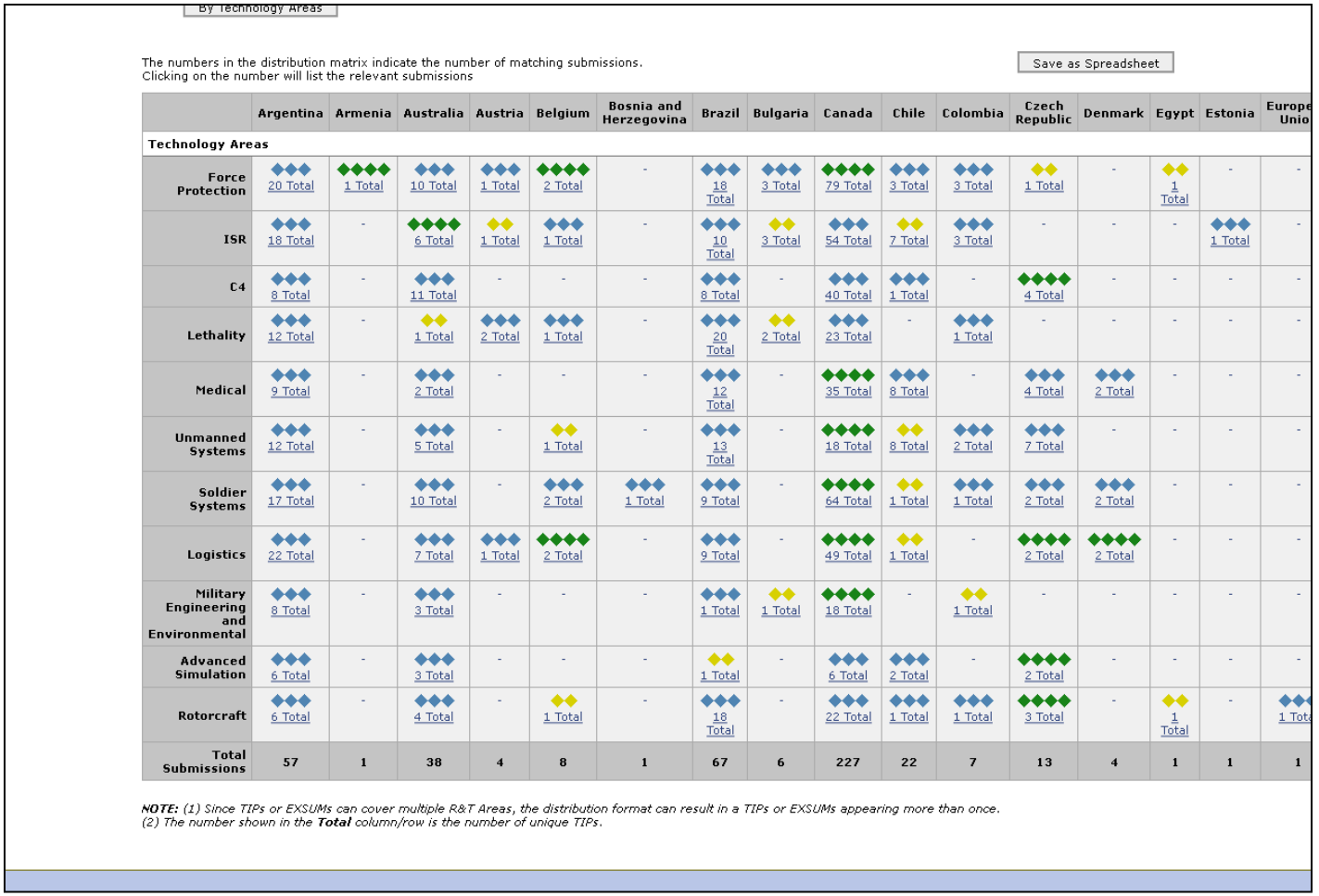
Save as Spreadsheet

	Argentina	Australia	Belgium	Brazil	Canada	Chile	Colombia	Cyprus	Czech Republic	Egypt	European Union	France	Georgia	Germany	Greece	Hungary
Basic Research Areas																
Mathematical Science	7 Total	-	-	1 Total	5 Total	1 Total	-									
Computer and Information Science	3 Total	2 Total	-	10 Total	7 Total	3 Total	-									
Physics	7 Total	1 Total	2 Total	18 Total	7 Total	2 Total	2 Total									
Chemistry	3 Total	-	-	4 Total	9 Total	2 Total	-									
Materials Science	8 Total	2 Total	-	38 Total	4 Total	2 Total	4 Total									
Electronics Research	3 Total	1 Total	1 Total	5 Total	7 Total	3 Total	2 Total	-	-	-	-	8 Total	-	-	1 Total	-
Mechanical Science	1 Total	1 Total	-	18 Total	7 Total	2 Total	3 Total	-	-	-	-	2 Total	-	-	1 Total	-
Terrestrial Sciences	-	-	-	-	4 Total	1 Total	-	-	-	-	-	-	-	-	-	-
Biomedical Research	-	2 Total	-	1 Total	1 Total	4 Total	-	-	-	1 Total	-	-	-	-	-	-
Biological Sciences	1 Total	-	-	14 Total	-	2 Total	-	-	-	1 Total	-	-	-	-	-	-
Behavioral, Cognitive, and Neural Sciences	-	-	-	1 Total	10 Total	4 Total	-	-	-	-	-	-	-	-	3 Total	-
Total Submissions	23	6	2	81	42	18	7	1	1	2	1	11	1	3	5	1

NOTE: *(1) Since TIPs or EXSUMs can cover multiple R&T Areas, the distribution format can result in a TIPs or EXSUMs appearing more than once.*
(2) The number shown in the ***Total*** *column/row is the number of unique TIPs.*

The quality rating displayed in the table is an average based on those relevant submissions for which a quality rating has been established.

Technology Area Country Capabilities



By Technology Areas

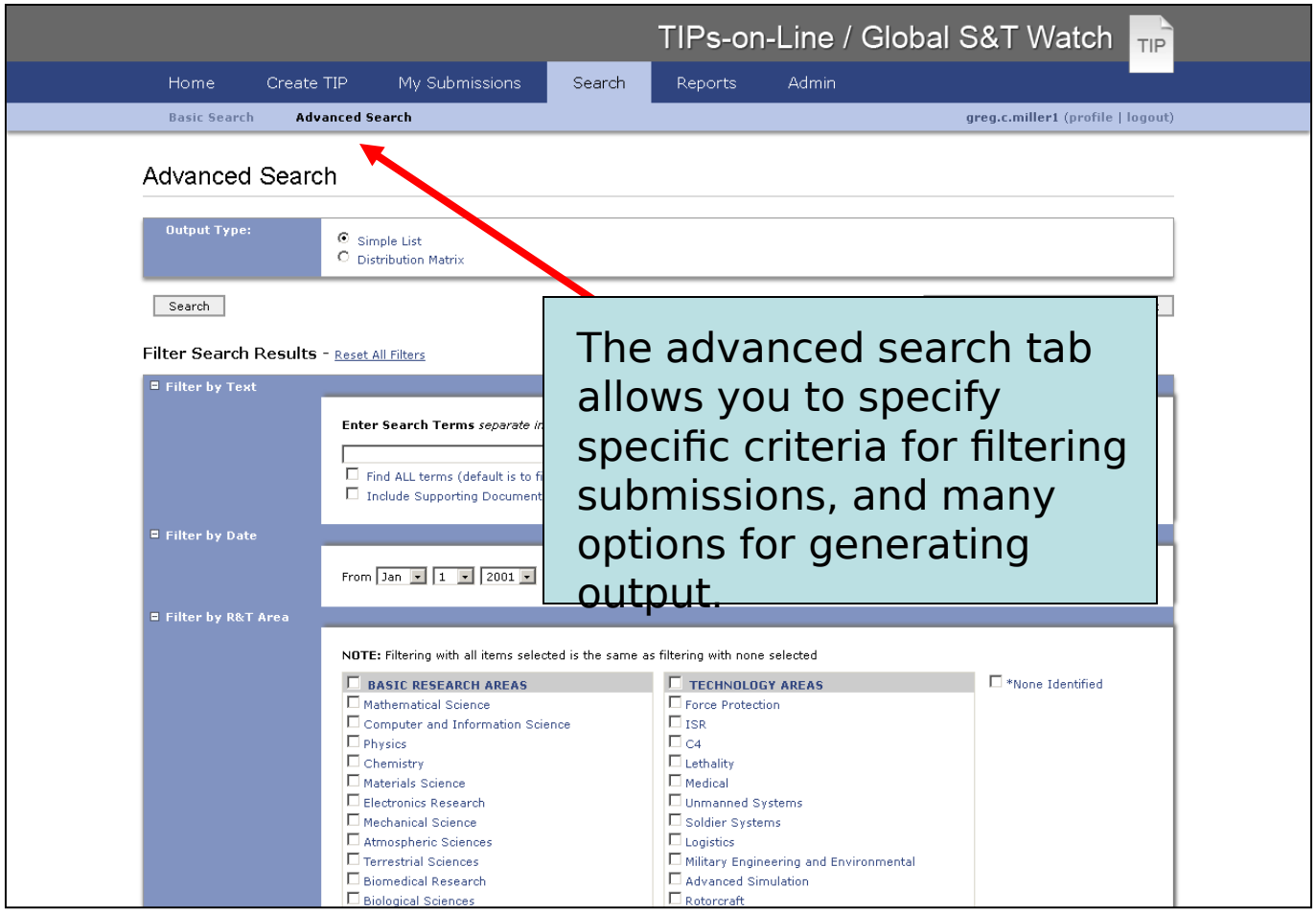
The numbers in the distribution matrix indicate the number of matching submissions.
Clicking on the number will list the relevant submissions

Save as Spreadsheet

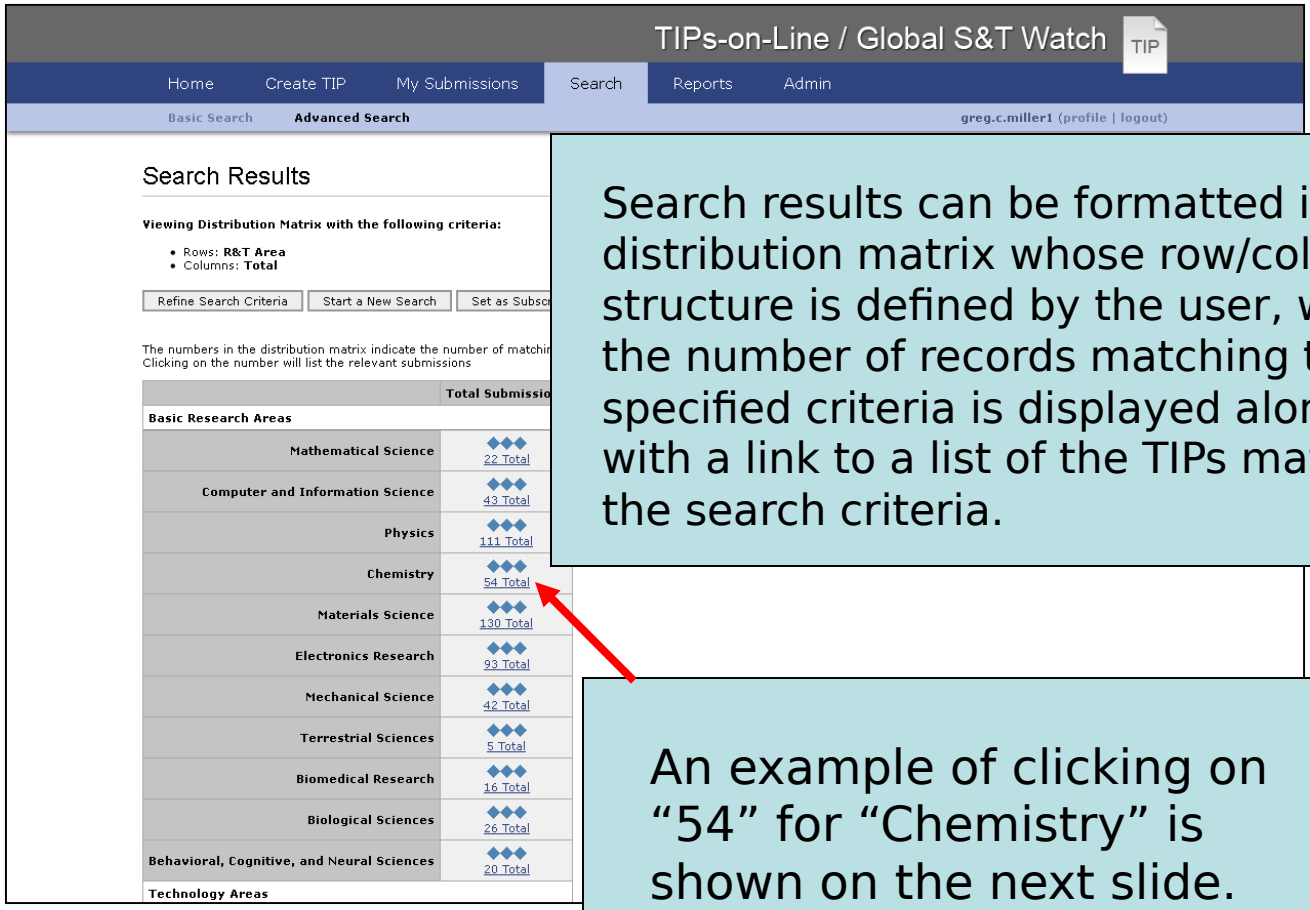
	Argentina	Armenia	Australia	Austria	Belgium	Bosnia and Herzegovina	Brazil	Bulgaria	Canada	Chile	Colombia	Czech Republic	Denmark	Egypt	Estonia	Europe Unio
Technology Areas																
Force Protection	20 Total	1 Total	10 Total	1 Total	2 Total	-	18 Total	3 Total	79 Total	3 Total	3 Total	1 Total	-	1 Total	-	-
ISR	18 Total	-	6 Total	1 Total	1 Total	-	10 Total	3 Total	54 Total	7 Total	3 Total	-	-	-	1 Total	-
C4	8 Total	-	11 Total	-	-	-	8 Total	-	40 Total	1 Total	-	4 Total	-	-	-	-
Lethality	12 Total	-	1 Total	2 Total	1 Total	-	20 Total	2 Total	23 Total	-	1 Total	-	-	-	-	-
Medical	9 Total	-	2 Total	-	-	-	12 Total	-	35 Total	8 Total	-	4 Total	2 Total	-	-	-
Unmanned Systems	12 Total	-	5 Total	-	1 Total	-	13 Total	-	18 Total	8 Total	2 Total	7 Total	-	-	-	-
Soldier Systems	17 Total	-	10 Total	-	2 Total	1 Total	9 Total	-	64 Total	1 Total	1 Total	2 Total	2 Total	-	-	-
Logistics	22 Total	-	7 Total	1 Total	2 Total	-	9 Total	-	49 Total	1 Total	-	2 Total	2 Total	-	-	-
Military Engineering and Environmental	8 Total	-	3 Total	-	-	-	1 Total	1 Total	18 Total	-	1 Total	-	-	-	-	-
Advanced Simulation	6 Total	-	3 Total	-	-	-	1 Total	-	6 Total	2 Total	-	2 Total	-	-	-	-
Rotorcraft	6 Total	-	4 Total	-	1 Total	-	18 Total	-	22 Total	1 Total	1 Total	3 Total	-	1 Total	-	1 Tot
Total Submissions	57	1	38	4	8	1	67	6	227	22	7	13	4	1	1	1

NOTE: *(1) Since TIPs or EXSUMs can cover multiple R&T Areas, the distribution format can result in a TIPs or EXSUMs appearing more than once.*
(2) The number shown in the ***Total*** *column/row is the number of unique TIPs.*

Advanced Searching



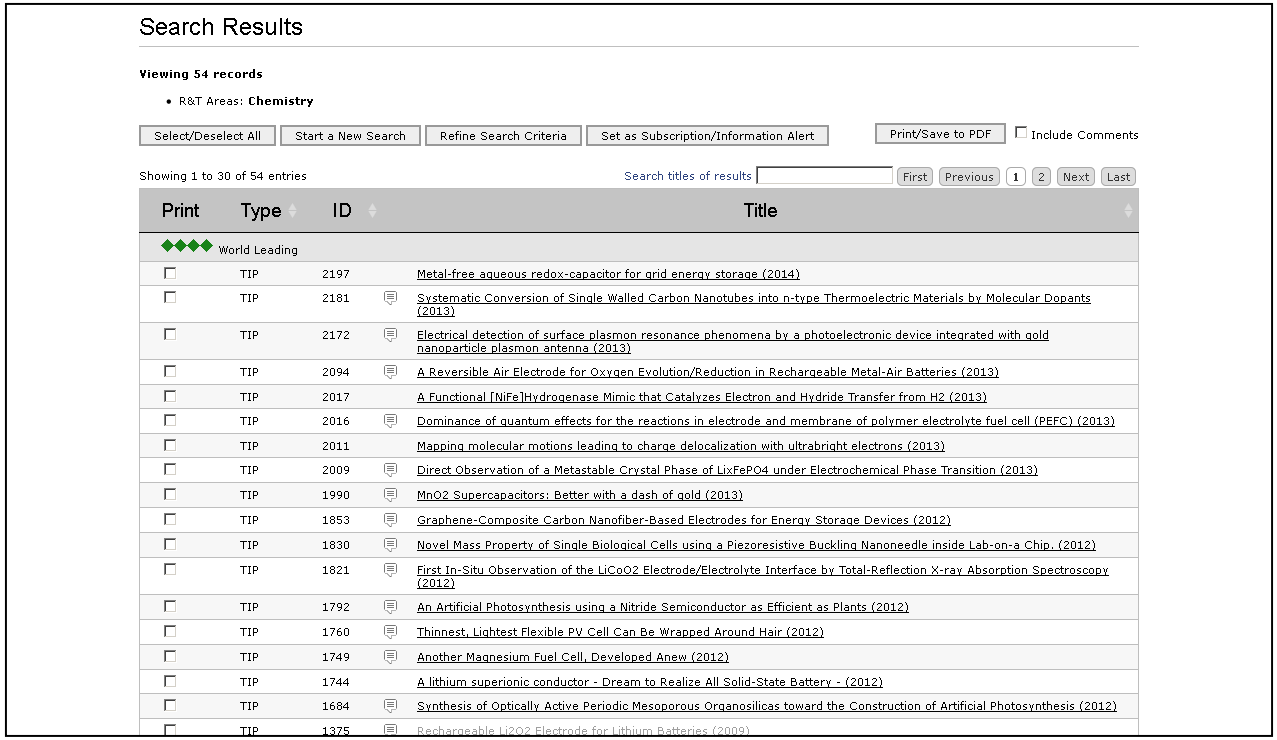
Search Results as a Distribution Matrix



Search results can be formatted into a distribution matrix whose row/column structure is defined by the user, where the number of records matching the specified criteria is displayed along with a link to a list of the TIPs matching the search criteria.

An example of clicking on “54” for “Chemistry” is shown on the next slide.

Clicking on a number in the distribution Matrix table



Search Results

Viewing 54 records

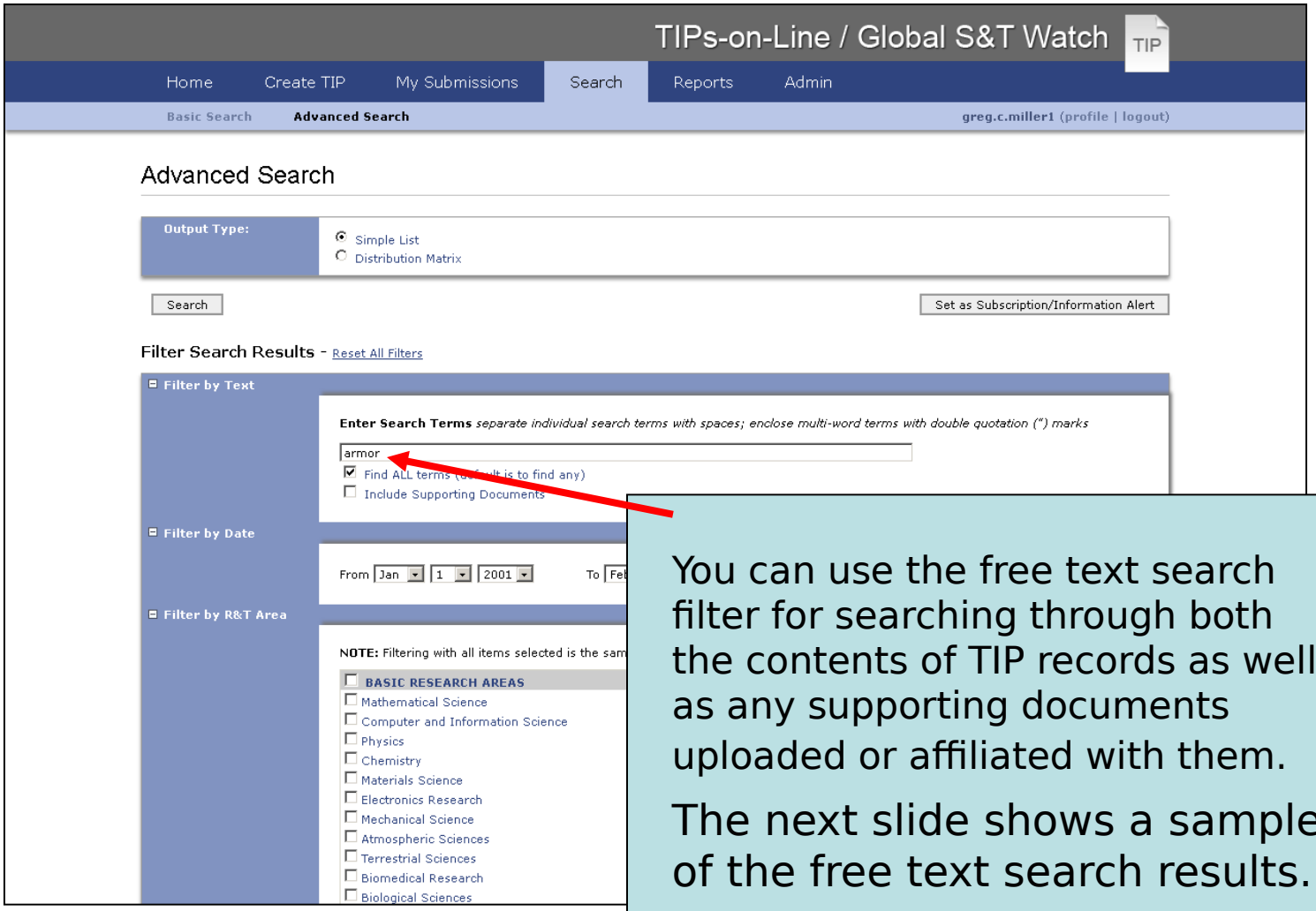
- R&T Areas: **Chemistry**

Select/Deselect All | Start a New Search | Refine Search Criteria | Set as Subscription/Information Alert | Print/Save to PDF | Include Comments

Showing 1 to 30 of 54 entries — Search titles of results — First | Previous | 1 | 2 | Next | Last

Print	Type	ID	Title
◆◆◆◆ World Leading			
☐	TIP	2197	Metal-free aqueous redox-capacitor for grid energy storage (2014)
☐	TIP	2181	Systematic Conversion of Single Walled Carbon Nanotubes into n-type Thermoelectric Materials by Molecular Dopants (2013)
☐	TIP	2172	Electrical detection of surface plasmon resonance phenomena by a photoelectronic device integrated with gold nanoparticle plasmon antenna (2013)
☐	TIP	2094	A Reversible Air Electrode for Oxygen Evolution/Reduction in Rechargeable Metal-Air Batteries (2013)
☐	TIP	2017	A Functional [NiFe]Hydrogenase Mimic that Catalyzes Electron and Hydride Transfer from H2 (2013)
☐	TIP	2016	Dominance of quantum effects for the reactions in electrode and membrane of polymer electrolyte fuel cell (PEFC) (2013)
☐	TIP	2011	Mapping molecular motions leading to charge delocalization with ultrabright electrons (2013)
☐	TIP	2009	Direct Observation of a Metastable Crystal Phase of LixFePO4 under Electrochemical Phase Transition (2013)
☐	TIP	1990	MnO2 Supercapacitors: Better with a dash of gold (2013)
☐	TIP	1853	Graphene-Composite Carbon Nanofiber-Based Electrodes for Energy Storage Devices (2012)
☐	TIP	1830	Novel Mass Property of Single Biological Cells using a Piezoresistive Buckling Nanoneedle inside Lab-on-a Chip. (2012)
☐	TIP	1821	First In-Situ Observation of the LiCoO2 Electrode/Electrolyte Interface by Total-Reflection X-ray Absorption Spectroscopy (2012)
☐	TIP	1792	An Artificial Photosynthesis using a Nitride Semiconductor as Efficient as Plants (2012)
☐	TIP	1760	Thinnest, Lightest Flexible PV Cell Can Be Wrapped Around Hair (2012)
☐	TIP	1749	Another Magnesium Fuel Cell, Developed Anew (2012)
☐	TIP	1744	A lithium superionic conductor - Dream to Realize All Solid-State Battery - (2012)
☐	TIP	1684	Synthesis of Optically Active Periodic Mesoporous Organosilicas toward the Construction of Artificial Photosynthesis (2012)
☐	TIP	1375	Rechargeable Li2O2 Electrode for Lithium Batteries (2009)

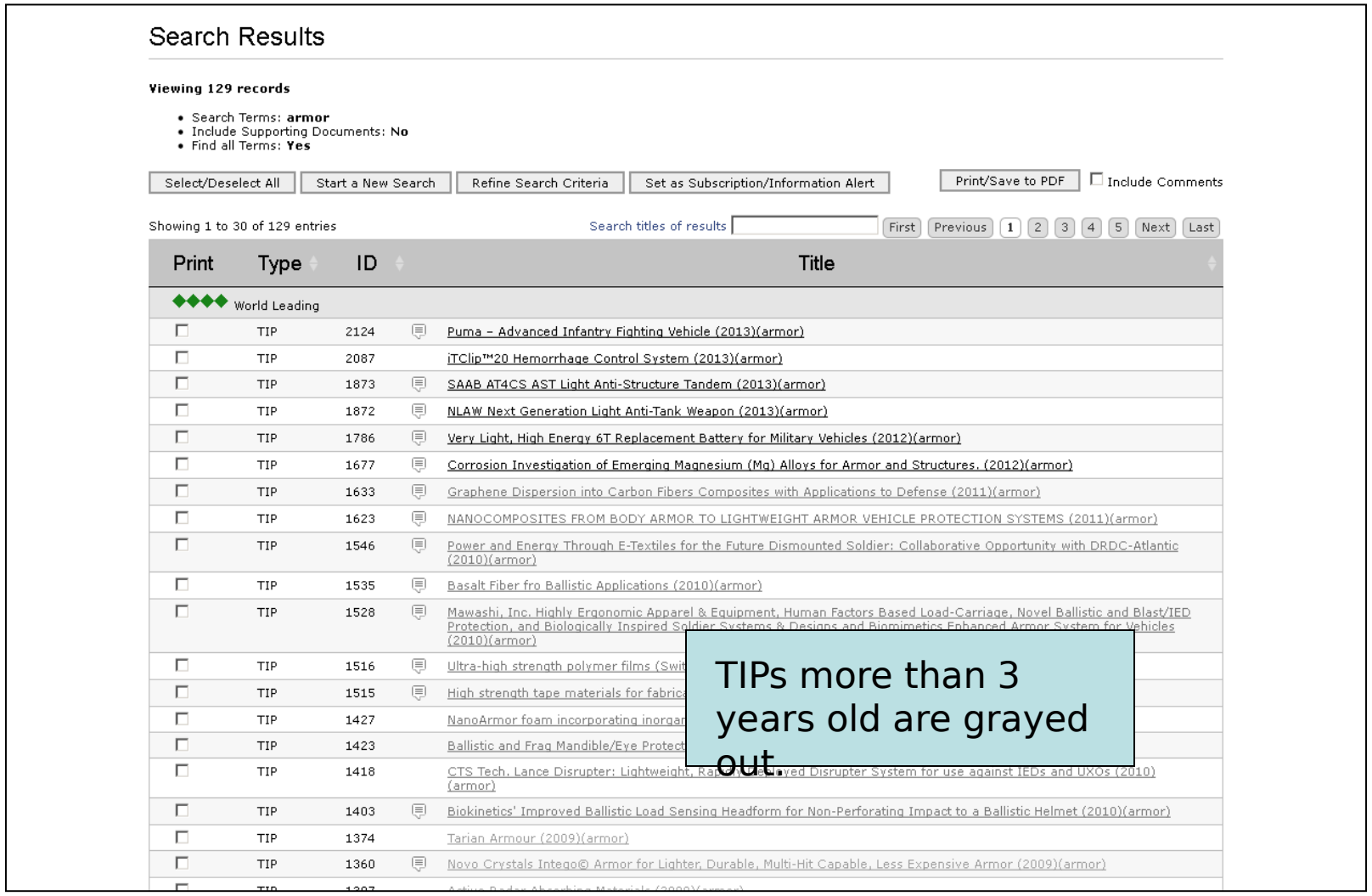
Free Text Searching



You can use the free text search filter for searching through both the contents of TIP records as well as any supporting documents uploaded or affiliated with them.

The next slide shows a sample of the free text search results.

Free Text Search Results



Search Results

Viewing 129 records

- Search Terms: **armor**
- Include Supporting Documents: **No**
- Find all Terms: **Yes**

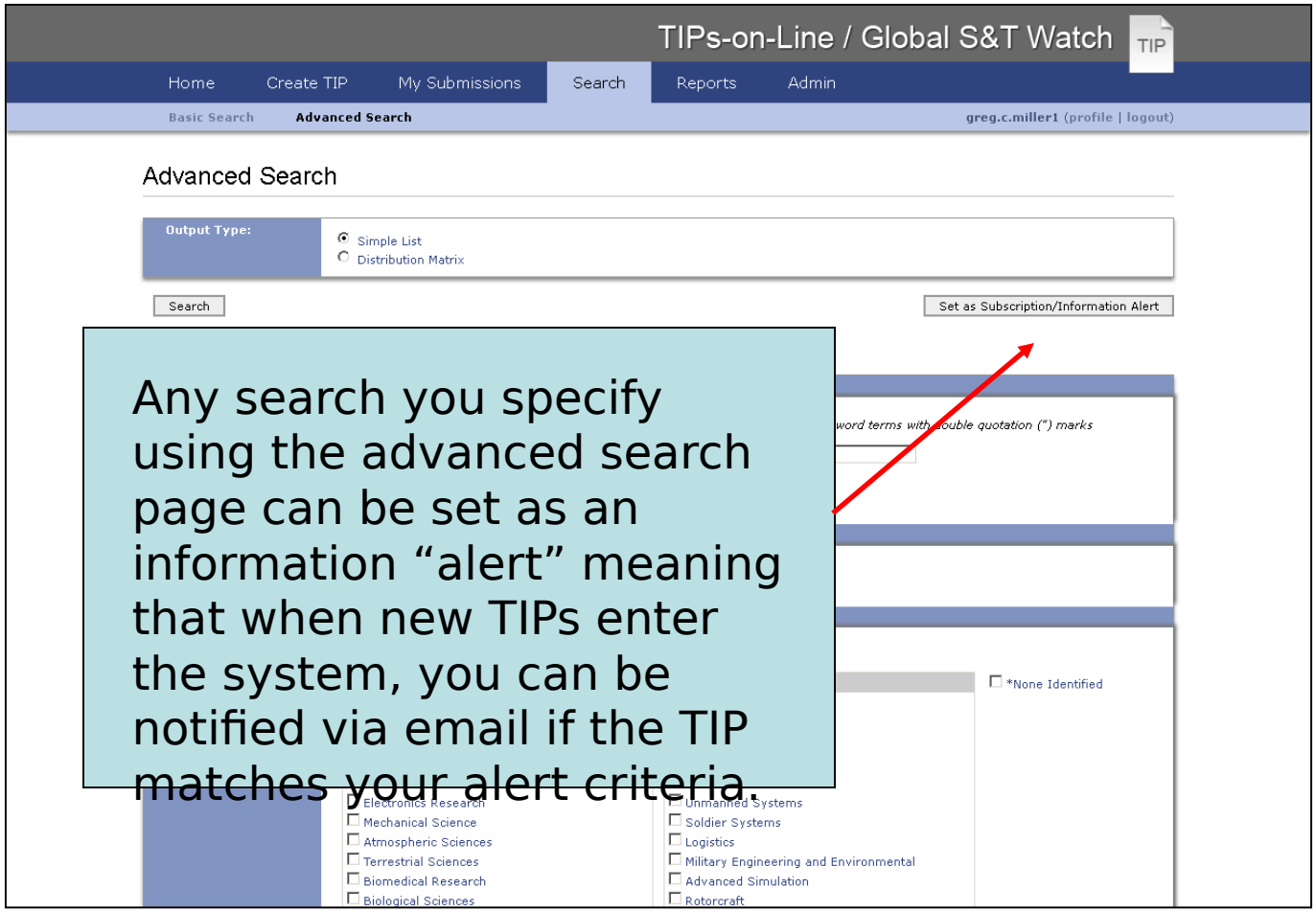
Select/Deselect All | Start a New Search | Refine Search Criteria | Set as Subscription/Information Alert | Print/Save to PDF | Include Comments

Showing 1 to 30 of 129 entries — Search titles of results — First | Previous | 1 | 2 | 3 | 4 | 5 | Next | Last

Print	Type	ID	Title
◆◆◆◆ World Leading			
☐	TIP	2124	Puma – Advanced Infantry Fighting Vehicle (2013)(armor)
☐	TIP	2087	iTClip™20 Hemorrhage Control System (2013)(armor)
☐	TIP	1873	SAAB AT4CS AST Light Anti-Structure Tandem (2013)(armor)
☐	TIP	1872	NLAW Next Generation Light Anti-Tank Weapon (2013)(armor)
☐	TIP	1786	Very Light, High Energy 6T Replacement Battery for Military Vehicles (2012)(armor)
☐	TIP	1677	Corrosion Investigation of Emerging Magnesium (Mg) Alloys for Armor and Structures. (2012)(armor)
☐	TIP	1633	Graphene Dispersion into Carbon Fibers Composites with Applications to Defense (2011)(armor)
☐	TIP	1623	NANOCOMPOSITES FROM BODY ARMOR TO LIGHTWEIGHT ARMOR VEHICLE PROTECTION SYSTEMS (2011)(armor)
☐	TIP	1546	Power and Energy Through E-Textiles for the Future Dismounted Soldier: Collaborative Opportunity with DRDC-Atlantic (2010)(armor)
☐	TIP	1535	Basalt Fiber fro Ballistic Applications (2010)(armor)
☐	TIP	1528	Mawashi, Inc. Highly Ergonomic Apparel & Equipment, Human Factors Based Load-Carriage, Novel Ballistic and Blast/IED Protection, and Biologically Inspired Soldier Systems & Designs and Biomimetics Enhanced Armor System for Vehicles (2010)(armor)
☐	TIP	1516	Ultra-high strength polymer films (Swit
☐	TIP	1515	High strength tape materials for fabric
☐	TIP	1427	NanoArmor foam incorporating inorgan
☐	TIP	1423	Ballistic and Frag Mandible/Eye Protect
☐	TIP	1418	CTS Tech, Lance Disrupter: Lightweight, Rapidly Deployed Disrupter System for use against IEDs and UXOs (2010) (armor)
☐	TIP	1403	Biokinetics' Improved Ballistic Load Sensing Headform for Non-Perforating Impact to a Ballistic Helmet (2010)(armor)
☐	TIP	1374	Tarian Armour (2009)(armor)
☐	TIP	1360	Novo Crystals Intego© Armor for Lighter, Durable, Multi-Hit Capable, Less Expensive Armor (2009)(armor)

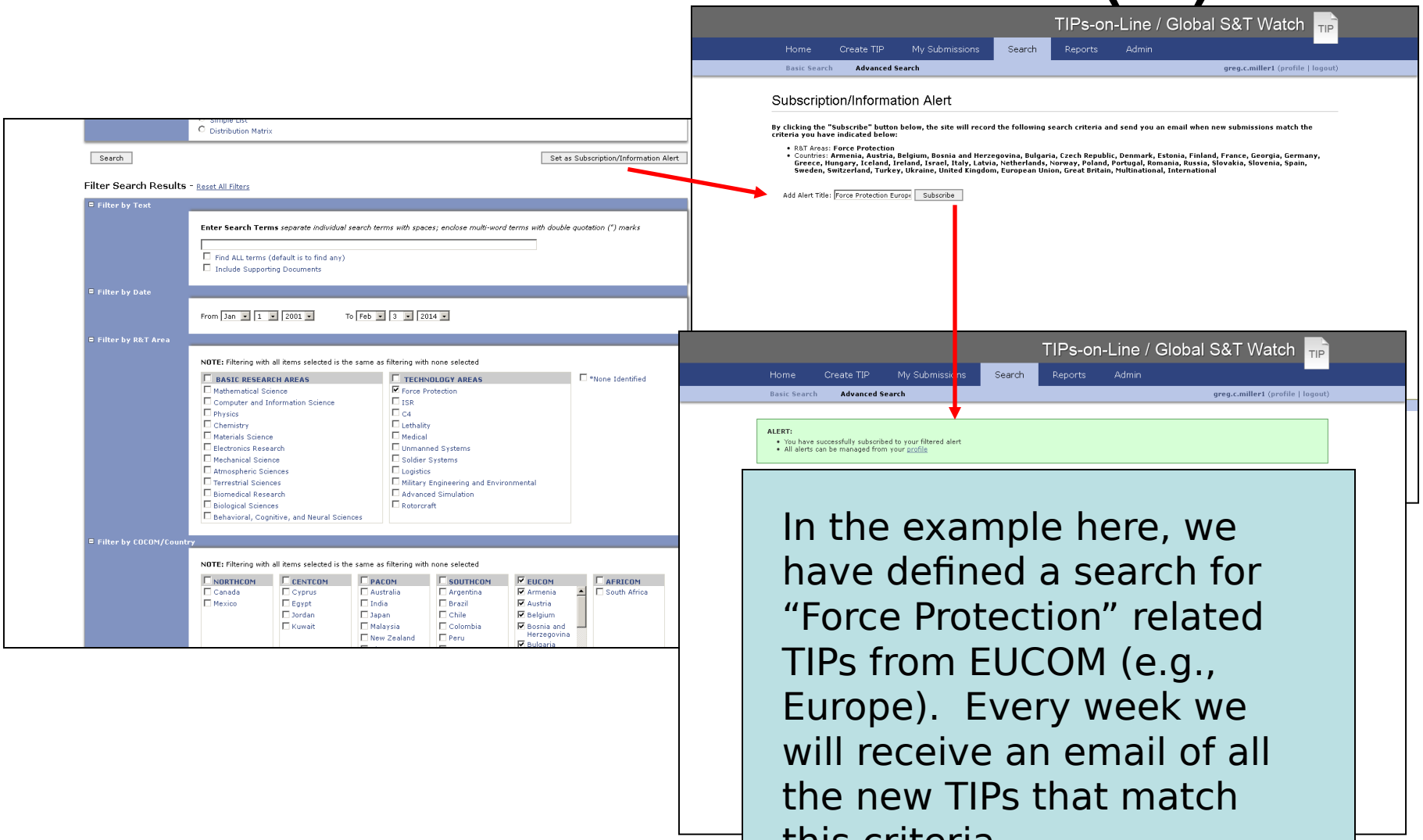
TIPs more than 3 years old are grayed out.

Information Alerts



Any search you specify using the advanced search page can be set as an information “alert” meaning that when new TIPs enter the system, you can be notified via email if the TIP matches your alert criteria.

Information Alerts (2)



In the example here, we have defined a search for “Force Protection” related TIPs from EUCOM (e.g., Europe). Every week we will receive an email of all the new TIPs that match this criteria.

ASTMP Annex B

TIPs-on-Line / Global S&T Watch

Home | Create TIP | My Submissions | Search | Reports | Admin

R&T Reports | Country Reports | Statistical Reports | Annex B | greg.c.miller1 (profile | logout)

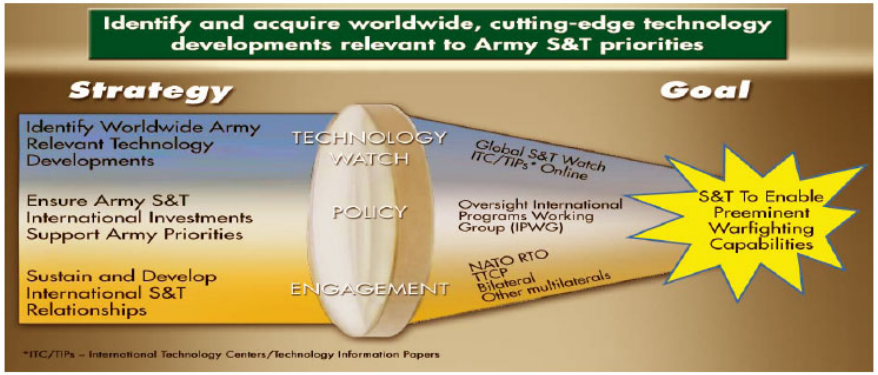
Annex B - INTERNATIONAL SCIENCE AND TECHNOLOGY: GLOBAL SCIENCE AND TECHNOLOGY WATCH

Print/Save to PDF

This annex is excerpted from the 2010 Army Science and Technology Plan (ASTMP)

The Army science and technology community pursues world-class research and technolo
coalition force effectiveness. This annex presents the Army's international S&T strategy
foreign technology, and describes how the Army enhances relationships with the scientifi
acquires those most relevant to Army priorities and those that support interoperability.
collaborations to leverage their technology developments and enhance relationships with
cooperation on research and technology developments that address Army priorities, sub
those seeking to advance the state of the art for improved interoperability.

The international S&T strategy (Figure B-1) provides the framework for identifying and a
program, the Army uses a systematic process for identifying foreign S&T developments
government-to-government collaborations are proposed to co-develop or acquire the te
leadership visibility and oversight to ensure that new international S&T collaborations are focused on Army priorities. Successful international collaborations depend on identifying areas of mutual interest and building trust with our partners. Through selected engagement initiatives, the Deputy Assistant Secretary of the Army for Research and Technology/Chief Scientist (DASA(R&T)) has enhanced the Army S&T communitys relationship with selected allies, the NATO Research Technology Organization, and The Technical Cooperation Program (TTCP). The success of the Army's international engagements, collaborations, and ultimately our relationships with our allies is vital to our nations security and the Army's ability to effectively conduct coalition operations.


Identify and acquire worldwide, cutting-edge technology developments relevant to Army S&T priorities
Strategy
Goal
Identify Worldwide Army Relevant Technology Developments
Ensure Army S&T International Investments Support Army Priorities
Sustain and Develop International S&T Relationships
TECHNOLOGY WATCH
POLICY
ENGAGEMENT
Global S&T Watch ITC/TIPs* Online
Oversight International Programs Working Group (IPWG)
NATO RTO
TTCP
Bilateral
Other multilaterals
S&T To Enable Preeminent Warfighting Capabilities
*ITC/TIPs – International Technology Centers/Technology Information Papers

International S&T strategy seeks to advance U.S. military dominance by identifying and acquiring cutting-edge technologies and to promote interoperability by sharing technology approaches.

Figure B-1. International Science and Technology Strategy

A. TECHNOLOGY WATCH

Also available as part of the GSTW is a copy of Annex B as it was published in the 2010 ASTMP.